

SIMES ENGINEERING CO., LTD. (HEAD OFFICE)

บริษัท ไชเมส เอ็นจิเนียริง (สำนักงานใหญ่)

121 Moo 1 Soi Thananiran , Sukhapibal Road , Tambol Bangsrimuang , Ampur Muang , Nonthaburi 11000

121 หมู่ 1 ซอย ธารนิรันดร ถนน สุขภิบาล ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

เลขประจำตัวผู้เสียภาษีอากร 0125558021330 อัตราร้อยละ 7

Tel. 02-8828968, 019146766, 018228835 FAX 02-4462334 e- mail address: chanvit_cru@yahoo.com

PARTIAL DISCHARGE REPORT

CUSTOMER :CO.,LTD.

DATE : July 8th, 2020



SIMES ENGINEERING CO.,LTD.(Head Office)

บริษัท ไชเมส เอ็นจิเนียริง จำกัด (สำนักงานใหญ่)

121 Moo 1 Soi Thananiran , Sukhapibal Road , Tambol Bangsrimuang , Ampur Muang , Nonthaburi 11000

121 หมู่ 1 ซอย ชนะนिरันตร์ ถนน สุขาศิบาล ตำบล บางศรีเมือง อําเภอ เมือง จังหวัด นนทบุรี 11000

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121 หมู่ 1 ซอย ชนะนิรันดร์ ถนน สุขุมวิท ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

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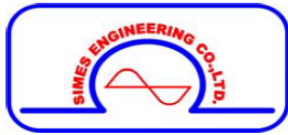
TEST DEVICES PD DETECTOR

1. TEV DETECTOR “EA Technology”



2. PMDT “Power Monitoring & Diagnostic Technology”





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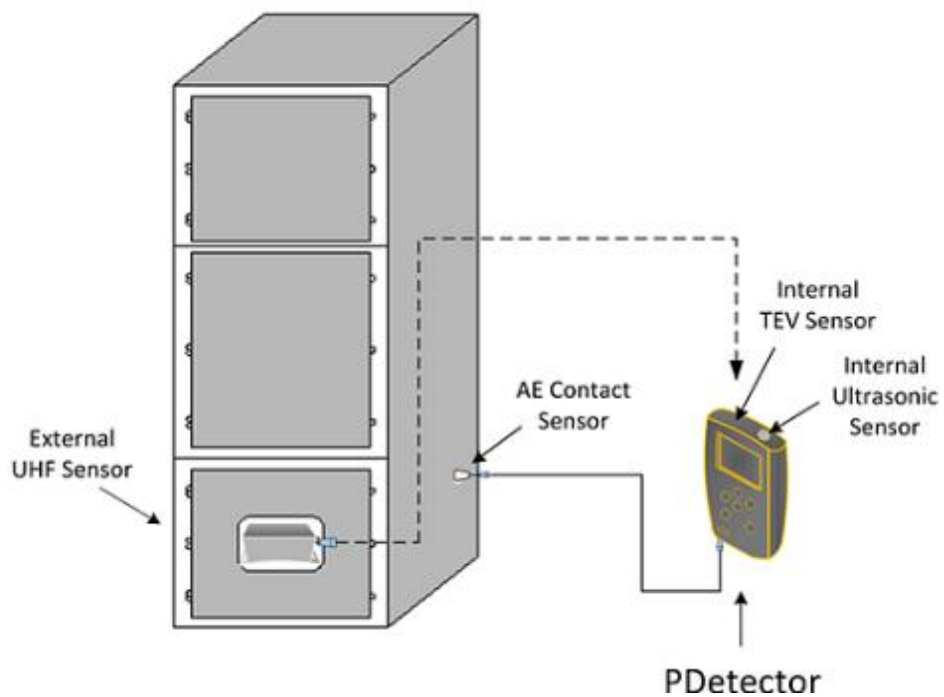
121 หมู่ 1 ซอย ธานีรัตน์ ถนน สุขุมวิท ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

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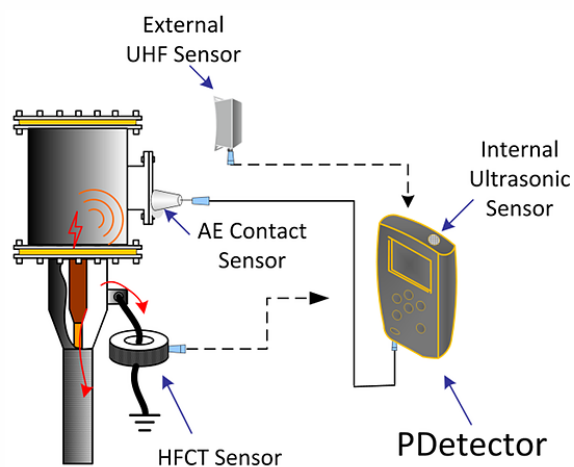
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

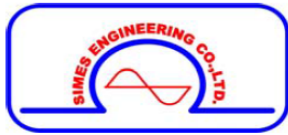
PARTIAL DISCHARGE DETECTION

MV Switchgear



GIS





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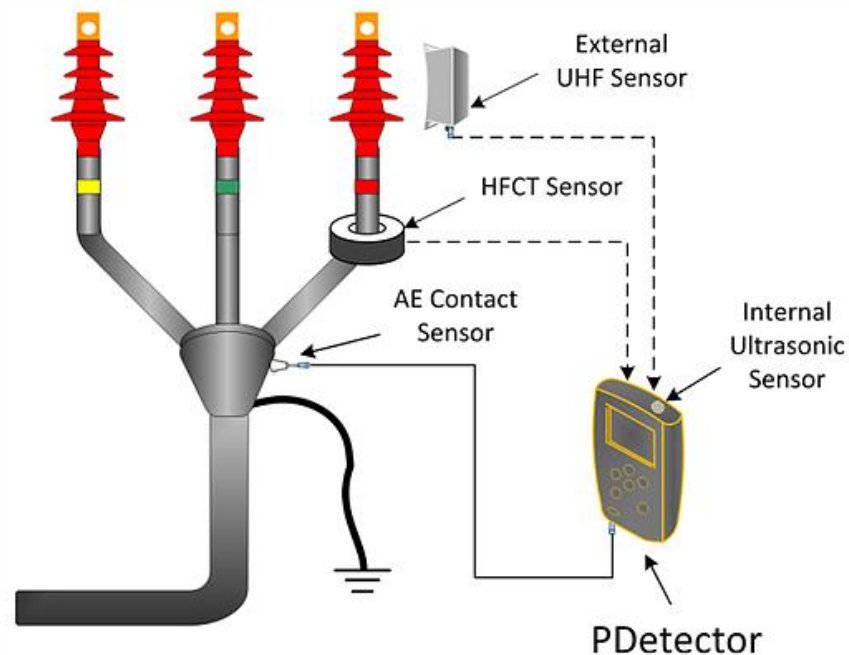
121 หมู่ 1 ซอย ธนะนิรันดร์ ถนน สุขุมวิท ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

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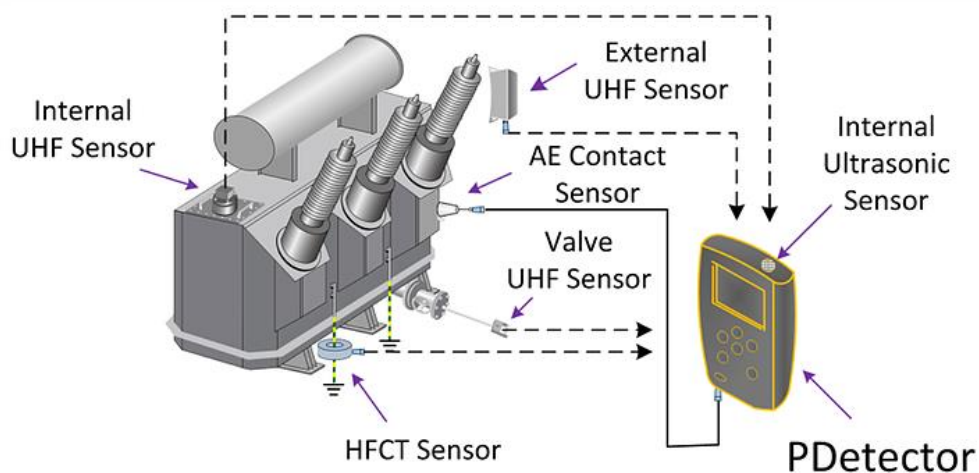
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

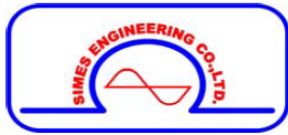
PARTIAL DISCHARGE DETECTION

Power Cable



Transformer





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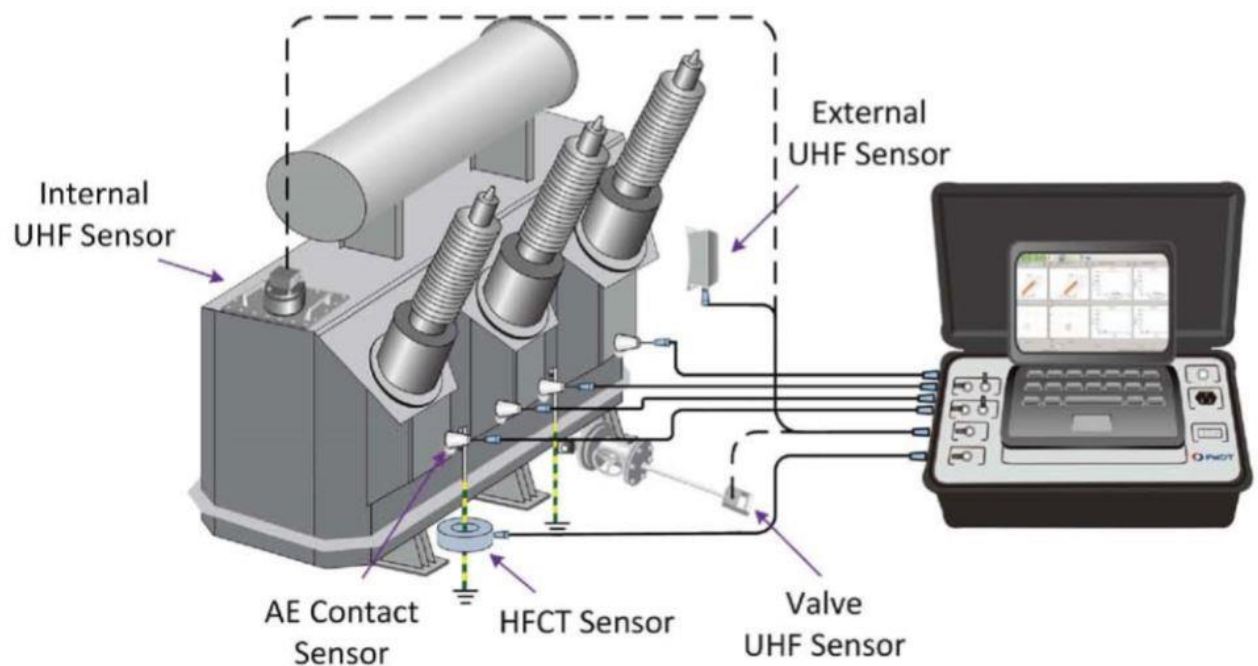
121 หมู่ 1 ซอย ธารนิรันดร ถนน สุขาภิบาล ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

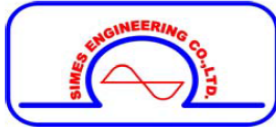
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PARTIAL DISCHARGE DETECTION

PARTIAL DISCHARGE DETECTION BY PDdiagnostic (for transformer)





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เลขประจำตัวผู้เสียภาษีอากร 0125558021330 อัตราร้อยละ 7

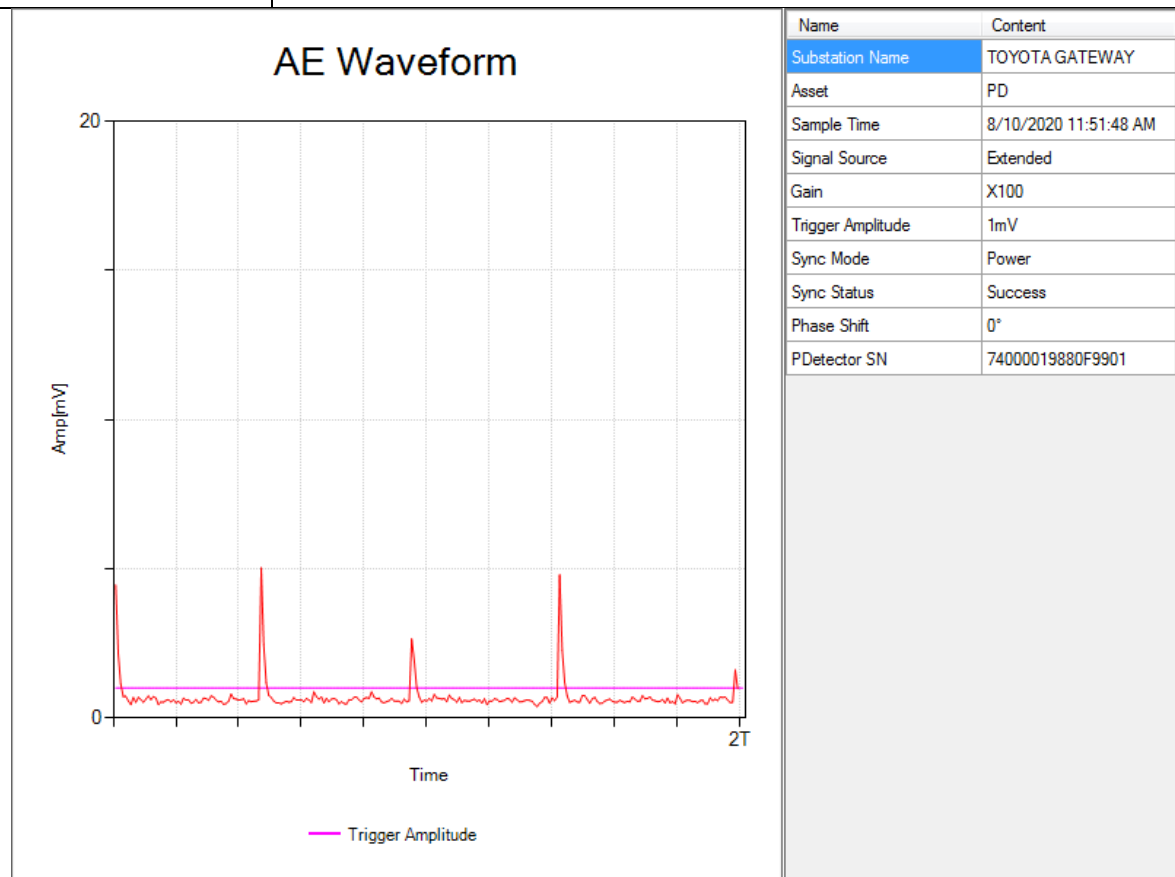
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

1. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ CAPACITOR NO.2 (BACK PANEL)

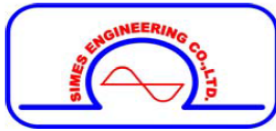
โดยใช้ AE Internal/Extended SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 18
SUBSTATION	GIS	
POSITION	CAPACITOR NO.2 (BACK PANEL)	
VOLTAGE LEVEL	22 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Internal/Extended MODE

CRITERIA	1-5 mV
EVALUATION	Warning



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121 หมู่ 1 ซอย ชนะนรินทร์ ถนน สุขภิบาล ตำบล บางศรีเมือง อําเภอ เมือง จังหวัด นนทบุรี 11000

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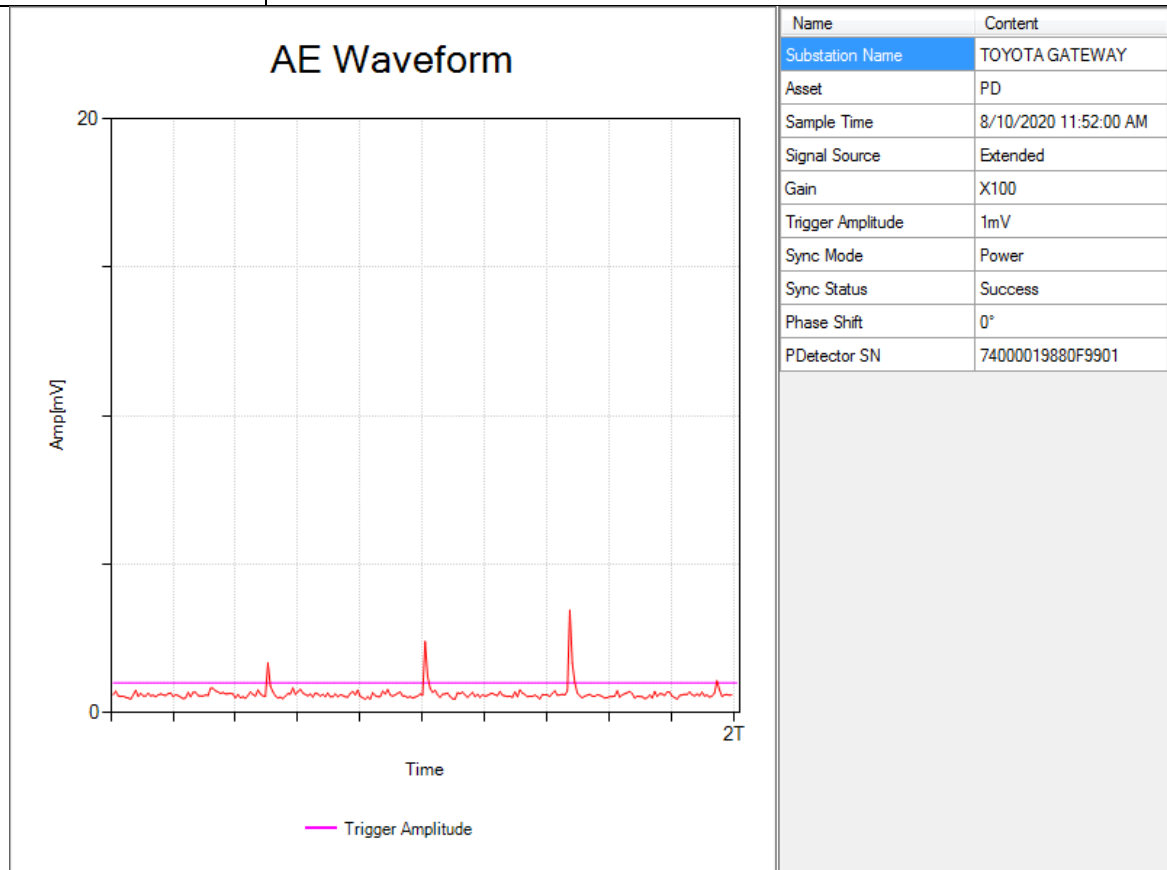
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

2. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ NO.2BANK BUS-TIE (BACK PANEL)

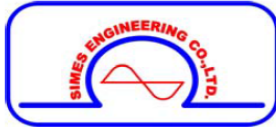
โดยใช้ AE Internal/Extended SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 19
SUBSTATION	GIS	
POSITION	NO.2BANK BUS-TIE (BACK PANEL)	
VOLTAGE LEVEL	22 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Internal/Extended MODE

CRITERIA	1-5 mV
EVALUATION	Warning



SIMES ENGINEERING CO.,LTD.(Head Office)

บริษัท ไชเมส เอ็นจิเนียริ่ง จำกัด (สำนักงานใหญ่)

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121 หมู่ 1 ซอย ชนะนรินทร์ ถนน สุขุมวิท ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

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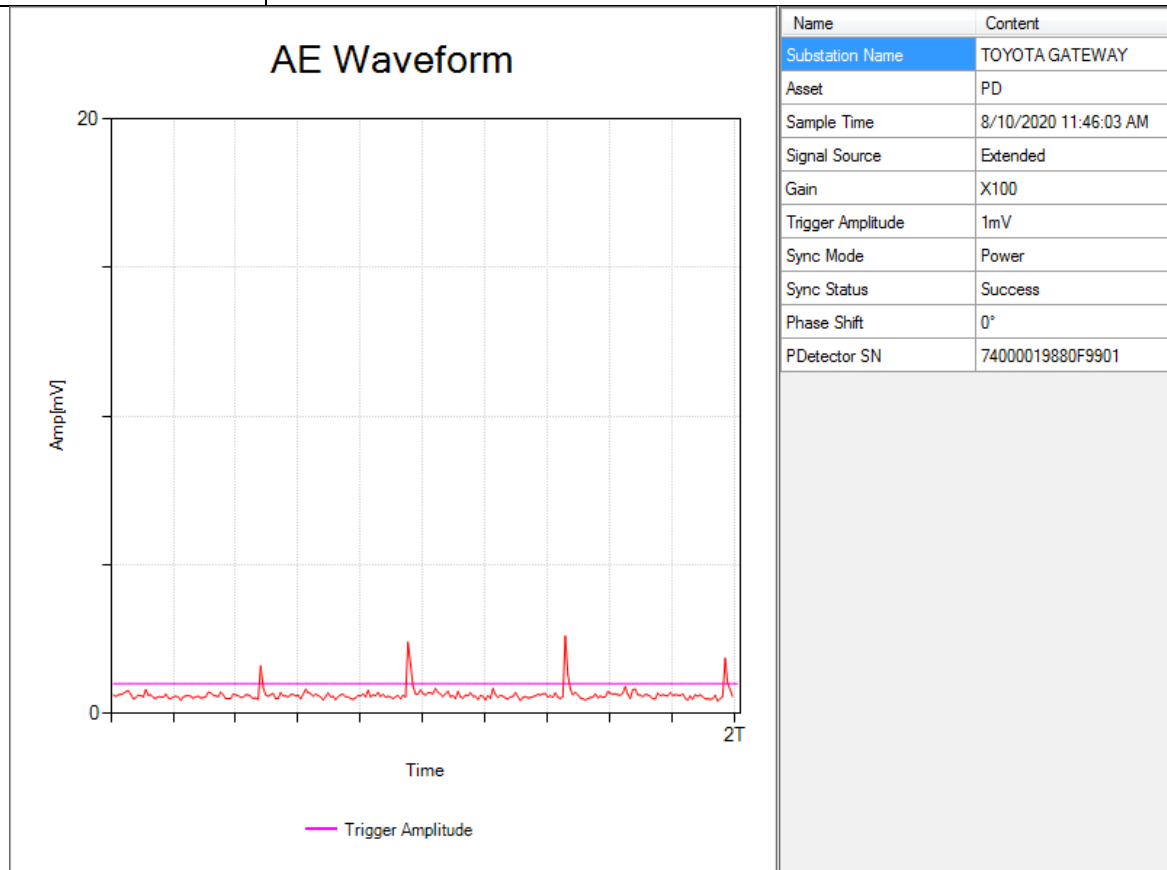
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

3. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ NO.1 TR.SEC. (BACK PANEL)

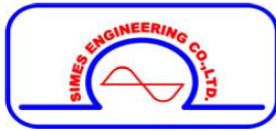
โดยใช้ AE Internal/Extended SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 20
SUBSTATION	GIS	
POSITION	NO.1 TR.SEC. (BACK PANEL)	
VOLTAGE LEVEL	22 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Internal/Extended MODE

CRITERIA	1-5 mV
EVALUATION	Warning



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เลขประจำตัวผู้เสียภาษีอากร 0125558021330 อัตราร้อยละ 7

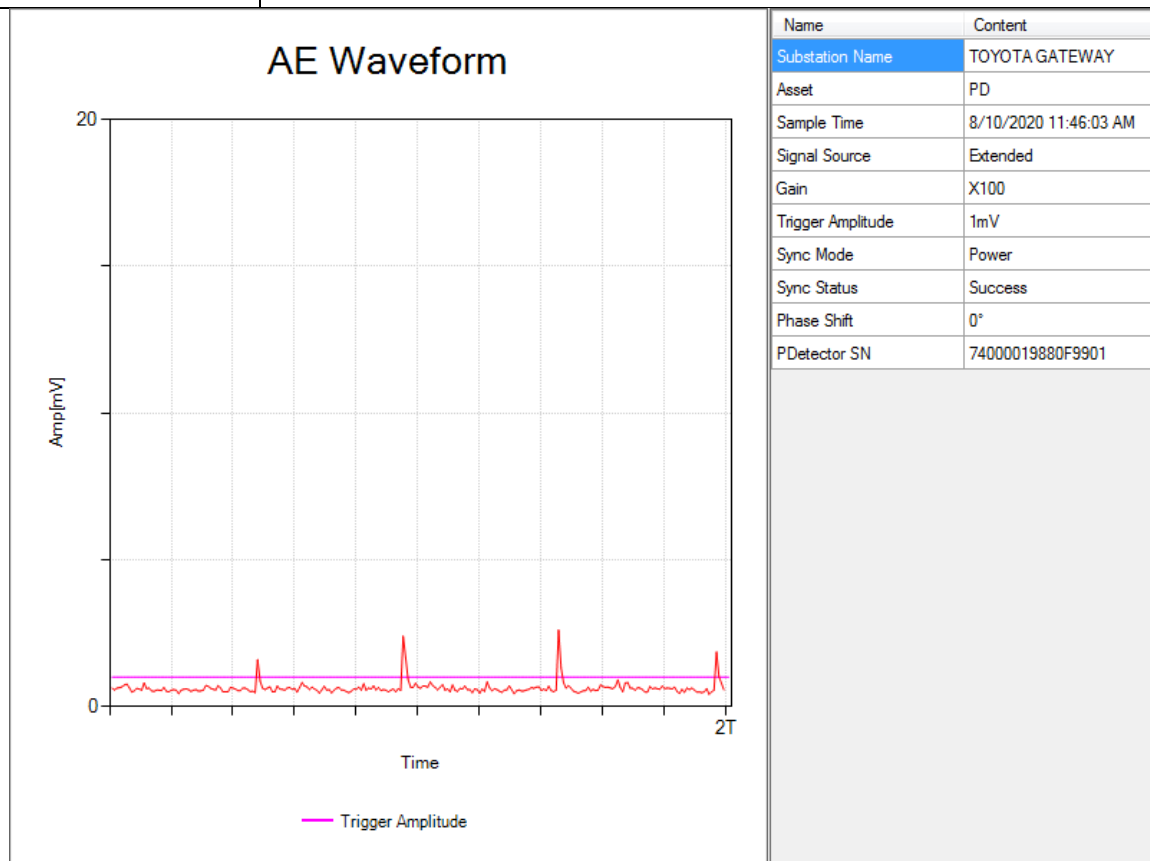
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

4. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ 1-1 FEEDER (BACK PANEL)

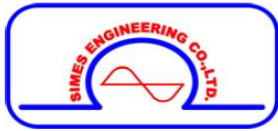
โดยใช้ AE Internal/Extended SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 21
SUBSTATION	GIS	
POSITION	1-1 FEEDER (BACK PANEL)	
VOLTAGE LEVEL	22 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Internal/Extended MODE

CRITERIA	1-5 mV
EVALUATION	Warning



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เลขประจำตัวผู้เสียภาษีอากร 0125558021330 อัตราร้อยละ 7

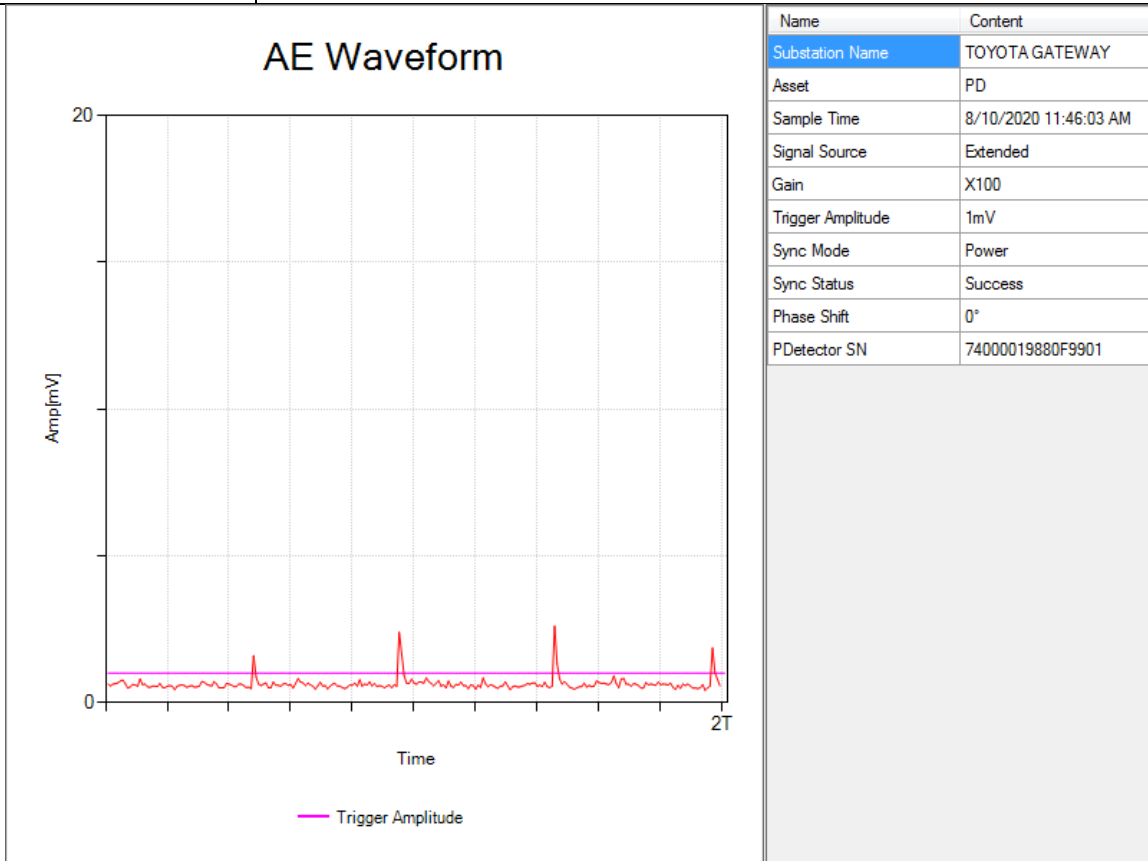
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

5. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ 1-2 FEEDER (BACK PANEL)

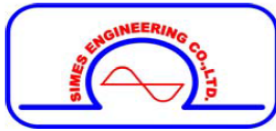
โดยใช้ AE Internal/Extended SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 22
SUBSTATION	GIS	
POSITION	1-2 FEEDER (BACK PANEL)	
VOLTAGE LEVEL	22 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Internal/Extended MODE

CRITERIA	1-5 mV
EVALUATION	Warning



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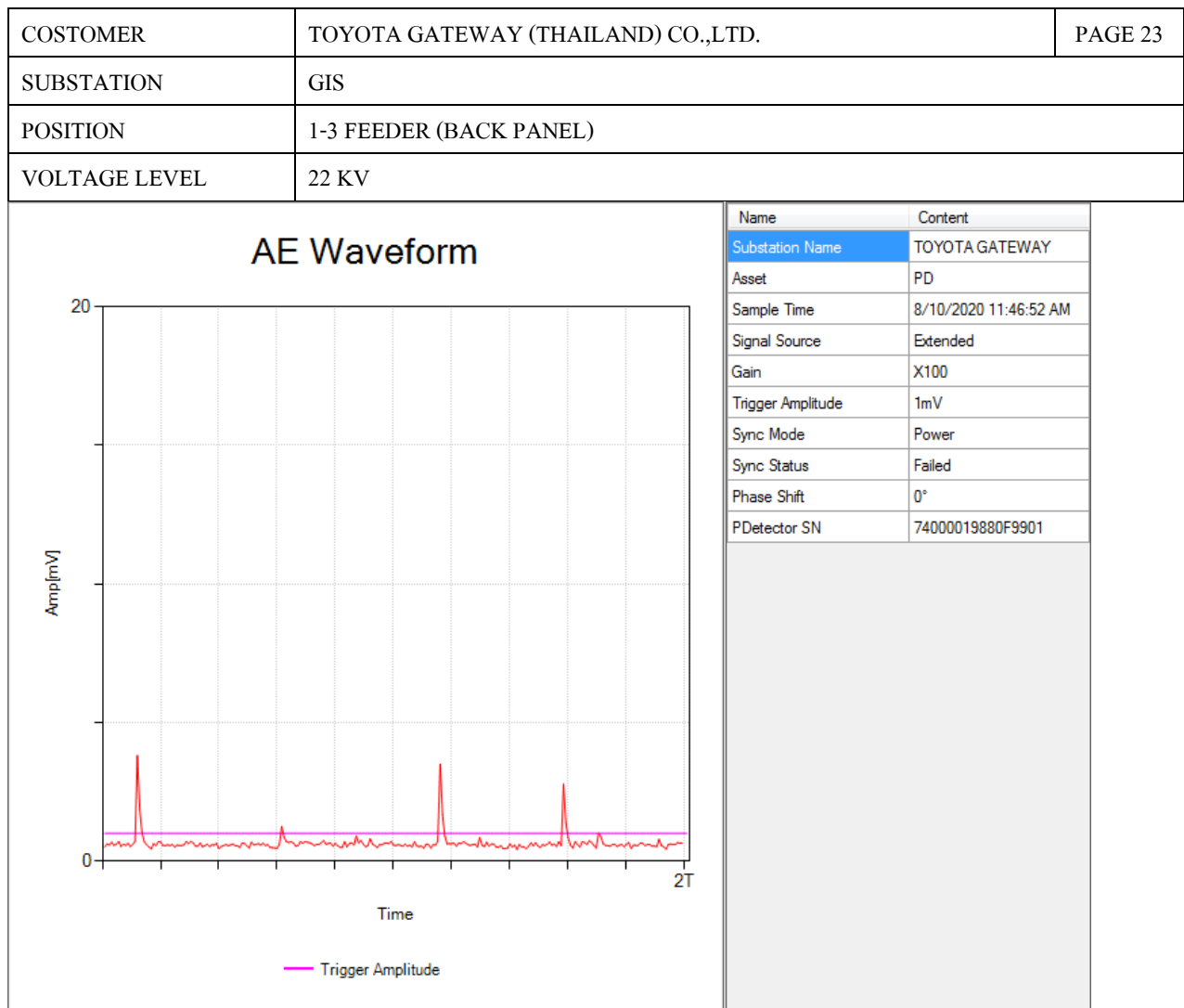
เลขประจำตัวผู้เสียภาษีอากร 0125558021330 อัตราร้อยละ 7

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SUMMARY REPORT

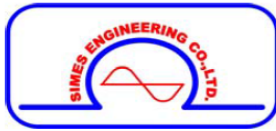
6. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ 1-3 FEEDER (BACK PANEL)

โดยใช้ AE Internal/Extended SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้



PARTIAL DISCHARGE DETECTION METHOD BY AE Internal/Extended MODE

CRITERIA	1-5 mV
EVALUATION	Warning



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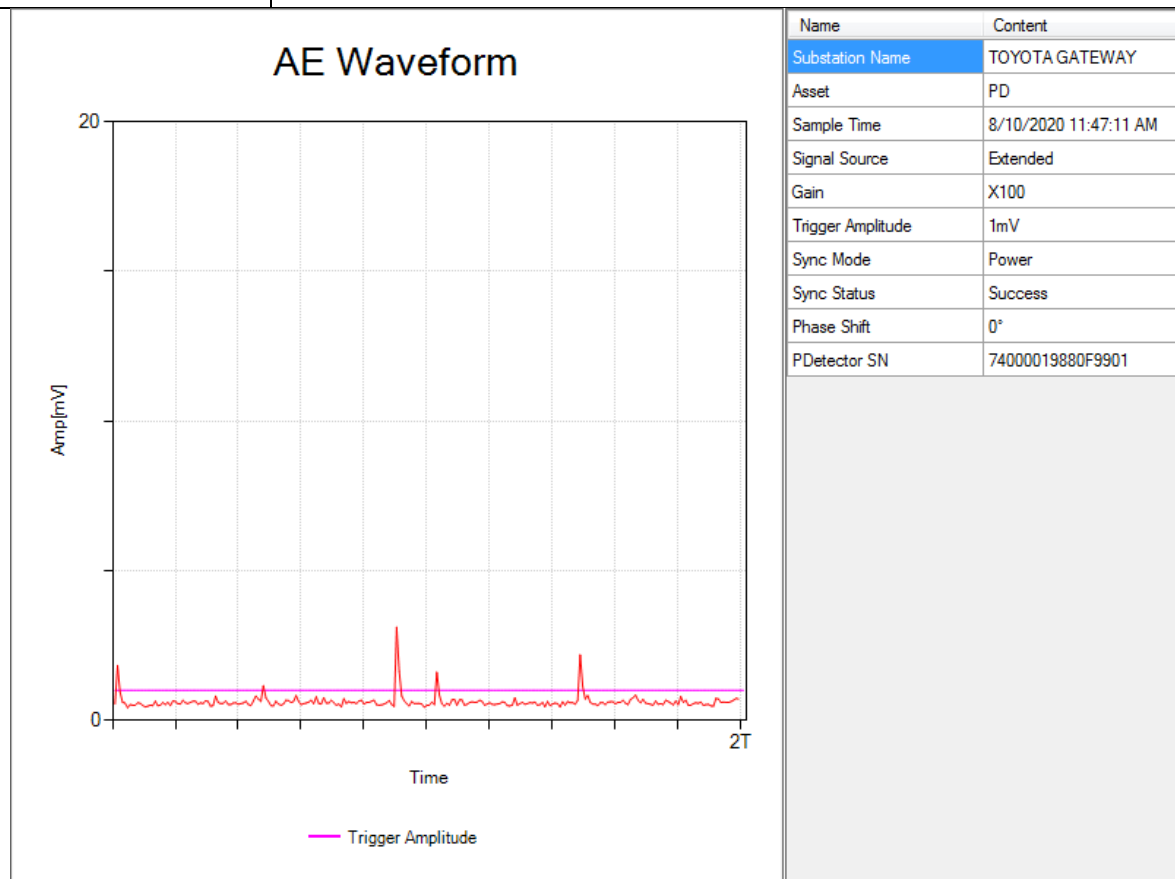
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

7. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ 1-4 FEEDER (BACK PANEL)

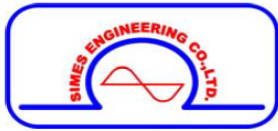
โดยใช้ AE Internal/Extended SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 24
SUBSTATION	GIS	
POSITION	1-4 FEEDER (BACK PANEL)	
VOLTAGE LEVEL	22 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Internal/Extended MODE

CRITERIA	1-5 mV
EVALUATION	Warning



SIMES ENGINEERING CO.,LTD.(Head Office)

บริษัท ไชเมส เอ็นจิเนียริ่ง จำกัด (สำนักงานใหญ่)

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เลขประจำตัวผู้เสียภาษีอากร 0125558021330 อัตราร้อยละ 7

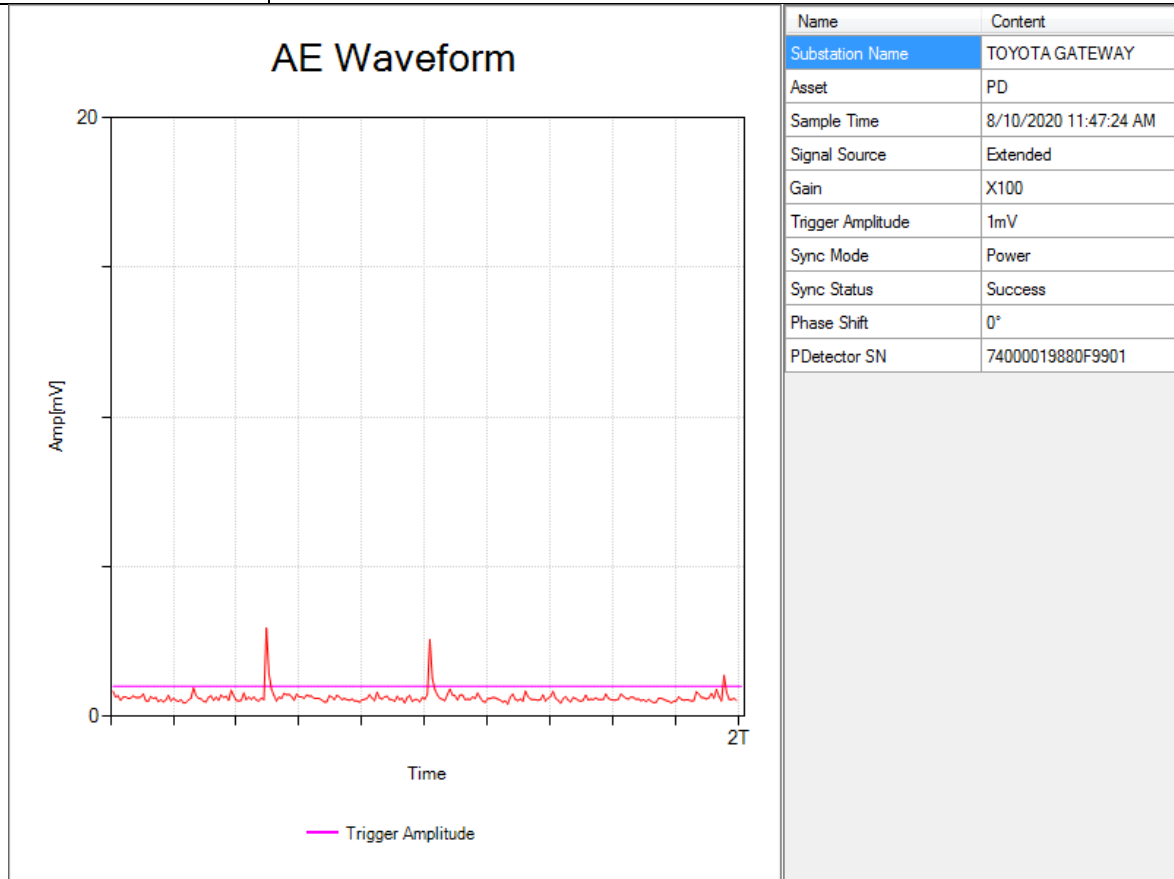
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

8. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ CAPACITOR (BACK PANEL)

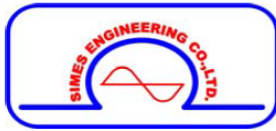
โดยใช้ AE Internal/Extended SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 25
SUBSTATION	GIS	
POSITION	CAPACITOR (BACK PANEL)	
VOLTAGE LEVEL	22 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Internal/Extended MODE

CRITERIA	1-5 mV
EVALUATION	Warning



SIMES ENGINEERING CO.,LTD.(Head Office)

บริษัท ไชเมส เอ็นจิเนียริง จำกัด (สำนักงานใหญ่)

121 Moo 1 Soi Thananiran , Sukhapibal Road , Tambol Bangsrimuang , Ampur Muang , Nonthaburi 11000

121 หมู่ 1 ซอย ชนะนรินทร์ ถนน สุขุมวิท ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

เลขประจำตัวผู้เสียภาษีอากร 0125558021330 อัตราร้อยละ 7

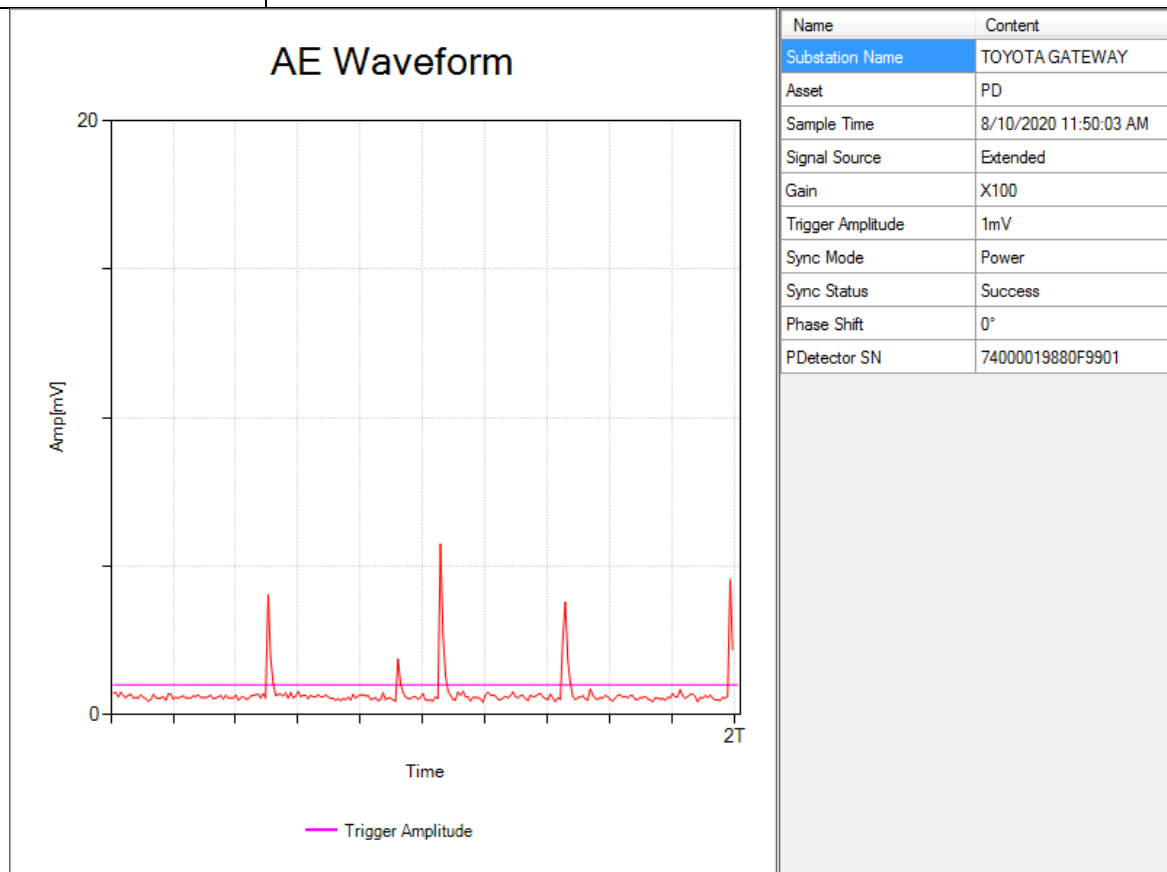
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

9. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ NO.2 BANK BUS VT (BACK PANEL)

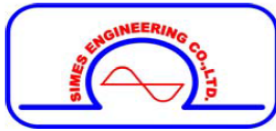
โดยใช้ AE Internal/Extended SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 26
SUBSTATION	GIS	
POSITION	NO.2 BANK BUS VT (BACK PANEL)	
VOLTAGE LEVEL	22 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Internal/Extended MODE

CRITERIA	1-5 mV
EVALUATION	Warning



SIMES ENGINEERING CO.,LTD.(Head Office)

บริษัท ไชเมส เอ็นจิเนียริ่ง จำกัด (สำนักงานใหญ่)

121 Moo 1 Soi Thananiran , Sukhapibal Road , Tambol Bangsrimuang , Ampur Muang , Nonthaburi 11000

121 หมู่ 1 ซอย ชะนิรันดร์ ถนน สุขภิบาล ตำบล บางศรีเมือง อําเภอ เมือง จังหวัด นนทบุรี 11000

เลขประจำตัวผู้เสียภาษีอากร 0125558021330 อัตราร้อยละ 7

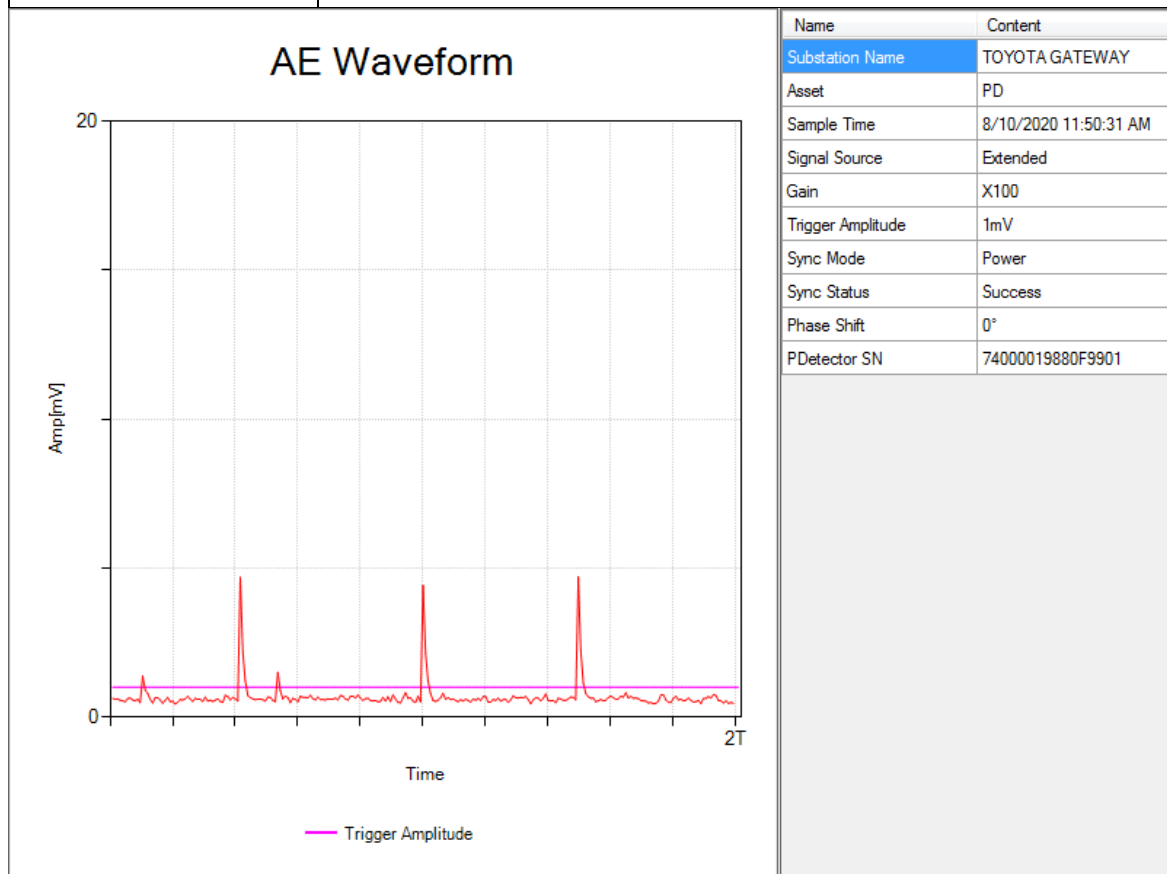
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

10. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ TR.2 TR SEC (BACK PANEL)

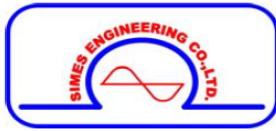
โดยใช้ AE Internal/Extended SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 27
SUBSTATION	GIS	
POSITION	TR.2 TR SEC (BACK PANEL)	
VOLTAGE LEVEL	22 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Internal/Extended MODE

CRITERIA	1-5 mV
EVALUATION	Warning



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บริษัท ไชเมส เอ็นจิเนียริ่ง จำกัด (สำนักงานใหญ่)

121 Moo 1 Soi Thananiran , Sukhapibal Road , Tambol Bangsrimuang , Ampur Muang , Nonthaburi 11000

121 หมู่ 1 ซอย ชนะนิรันดร์ ถนน สุขาภิบาล ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

เลขประจำตัวผู้เสียภาษีอากร 0125558021330 อัตราร้อยละ 7

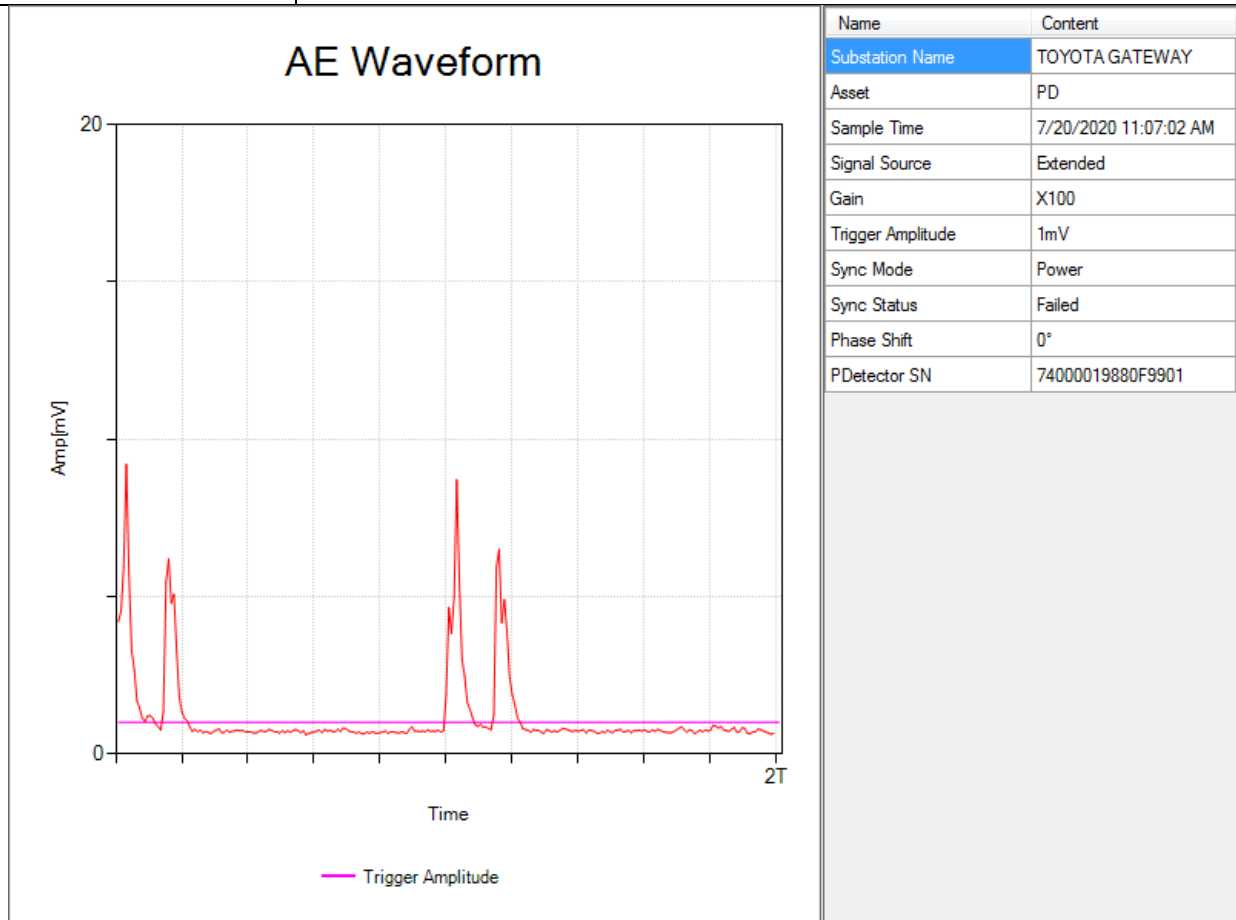
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

11. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ DISCONNECTING SWITCH PHASE R

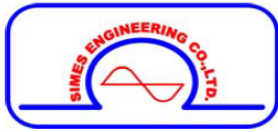
โดยใช้ AE Ultrasonic Dish SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 33
SUBSTATION	SUBSTATION 115 KV	
POSITION	DS PHASE R	
VOLTAGE LEVEL	115 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Ultrasonic Dish MODE

CRITERIA	5-20 mV
EVALUATION	Warning



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121 หมู่ 1 ซอย ชนะนิรันดร์ ถนน สุขาภิบาล ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

เลขประจำตัวเสียภาษีอากร 0125558021330 อัตราร้อยละ 7

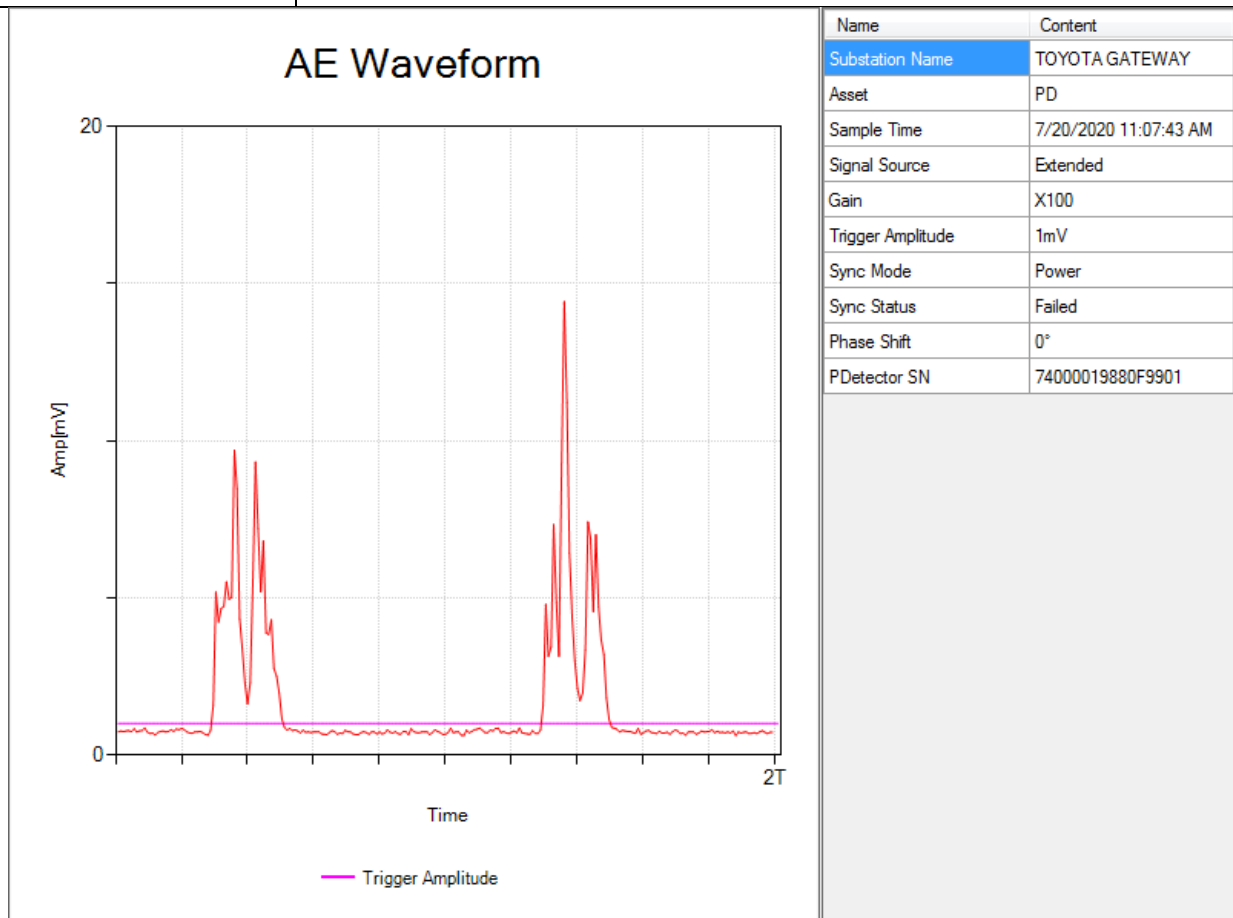
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

12. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ DISCONNECTING SWITCH PHASE Y

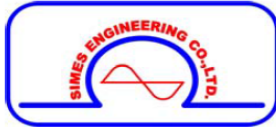
โดยใช้ AE Ultrasonic Dish SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 36
SUBSTATION	SUBSTATION 115 KV	
POSITION	DS PHASE Y	
VOLTAGE LEVEL	115 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Ultrasonic Dish MODE

CRITERIA	5-20 mV
EVALUATION	Warning



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บริษัท ไชเมส เอ็นจิเนียริ่ง จำกัด (สำนักงานใหญ่)

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121 หมู่ 1 ซอย ถนนนรินทร์ ถนน สุขาภิบาล ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

เลขประจำตัวเสียภาษีอากร 0125558021330 อัตราร้อยละ 7

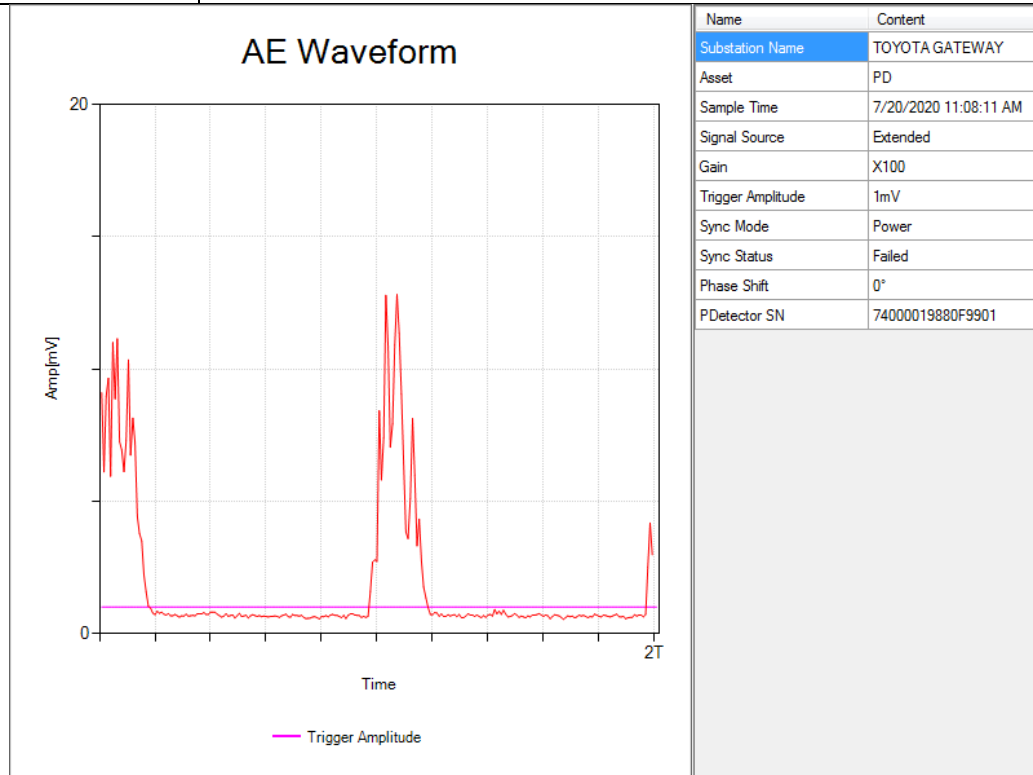
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

13. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ DISCONNECTING SWITCH PHASE B

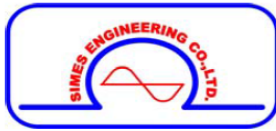
โดยใช้ AE Ultrasonic Dish SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 39
SUBSTATION	SUBSTATION 115 KV	
POSITION	DS PHASE B	
VOLTAGE LEVEL	115 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Ultrasonic Dish MODE

CRITERIA	5-20 mV
EVALUATION	Warning



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บริษัท ไชเมส เอ็นจิเนียริง จำกัด (สำนักงานใหญ่)

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121 หมู่ 1 ซอย ชนะนิรันดร์ ถนน สุขภิบาล ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

เลขประจำตัวผู้เสียภาษีอากร 0125558021330 อัตราร้อยละ 7

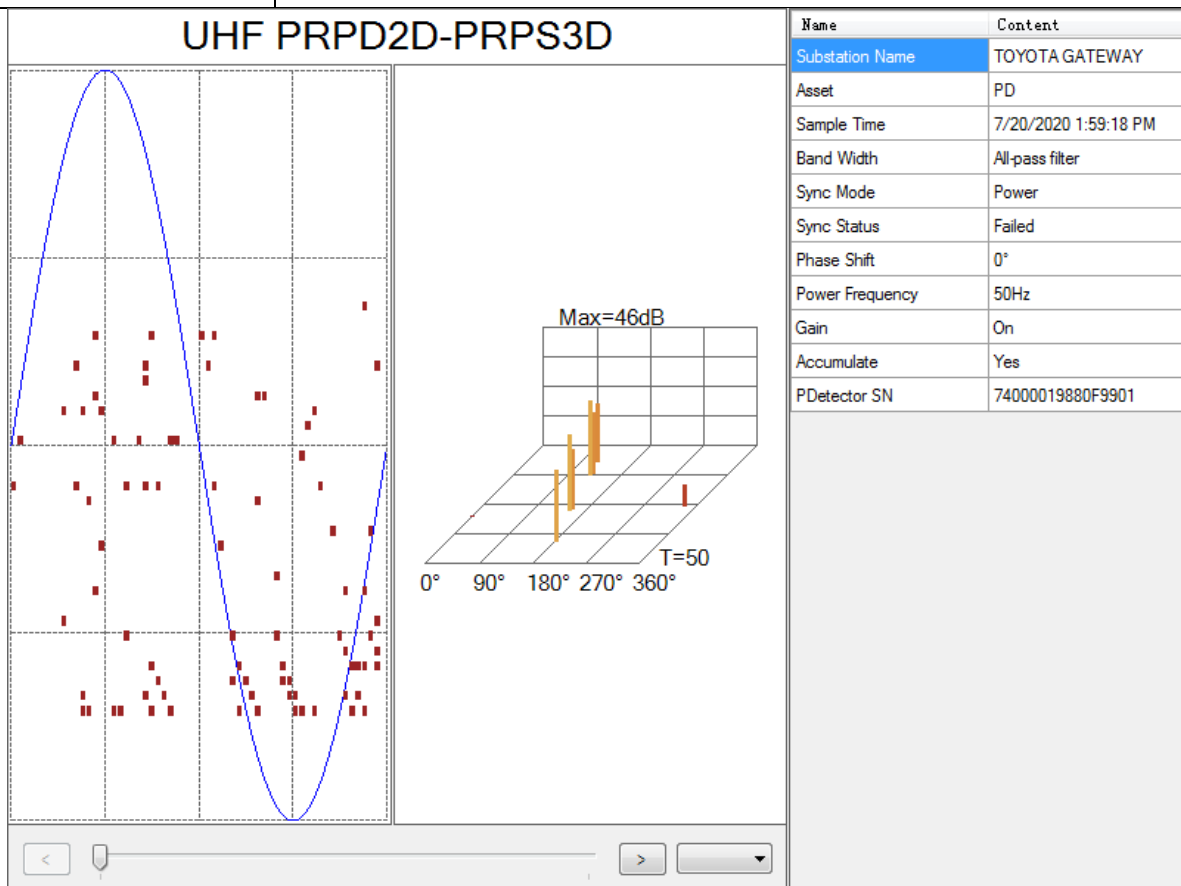
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

14. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ TR SEC

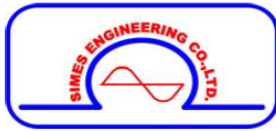
โดยใช้ UHF SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 86
SUBSTATION	GIS	
POSITION	NO.2 TR SEC	
VOLTAGE LEVEL	22 KV	



PARTIAL DISCHARGE DETECTION METHOD BY UHF MODE

CRITERIA	30-50 dB
EVALUATION	Warning



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บริษัท ไชเมส เอ็นจิเนียริ่ง จำกัด (สำนักงานใหญ่)

121 Moo 1 Soi Thananiran , Sukhapibal Road , Tambol Bangsrimuang , Ampur Muang , Nonthaburi 11000

121 หมู่ 1 ซอย ชนะนรินทร์ ถนน สุขุมวิท ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

เลขประจำตัวผู้เสียภาษีอากร 0125558021330 อัตราร้อยละ 7

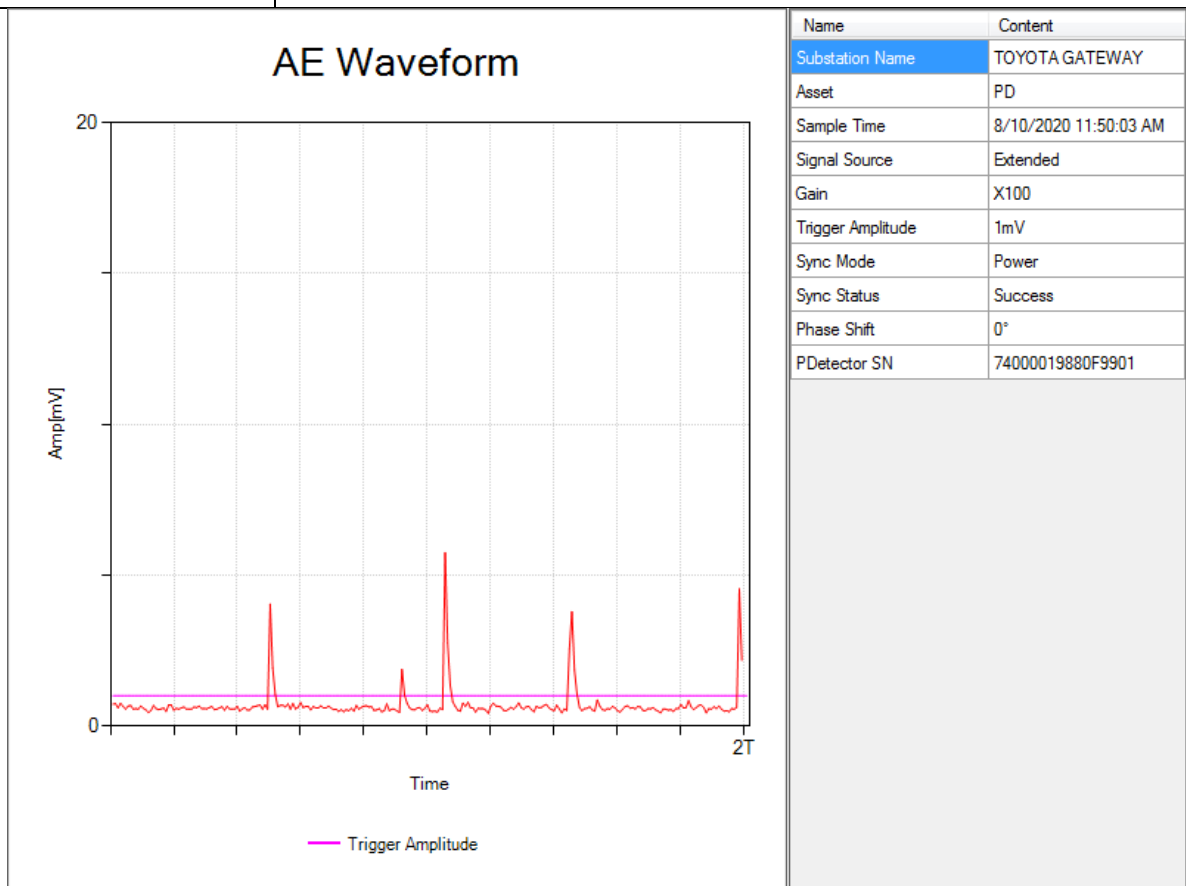
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

15. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ BANK 2 BUS VT (BACK PANEL)

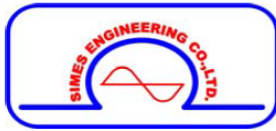
โดยใช้ AE Internal/Extended SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 126
SUBSTATION	SUBSTATION GI	
POSITION	22 KV GIS NO.2 BANK BUS VT (BACK PANEL)	
VOLTAGE LEVEL	22 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Internal/Extended MODE

CRITERIA	>5mV
EVALUATION	Critical



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บริษัท ไชเมส เอ็นจิเนียริ่ง จำกัด (สำนักงานใหญ่)

121 Moo 1 Soi Thananiran , Sukhapibal Road , Tambol Bangsrimuang , Ampur Muang , Nonthaburi 11000

121 หมู่ 1 ซอย ชะนิรันดร์ ถนน สุขภิบาล ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

เลขประจำตัวผู้เสียภาษีอากร 0125558021330 อัตราร้อยละ 7

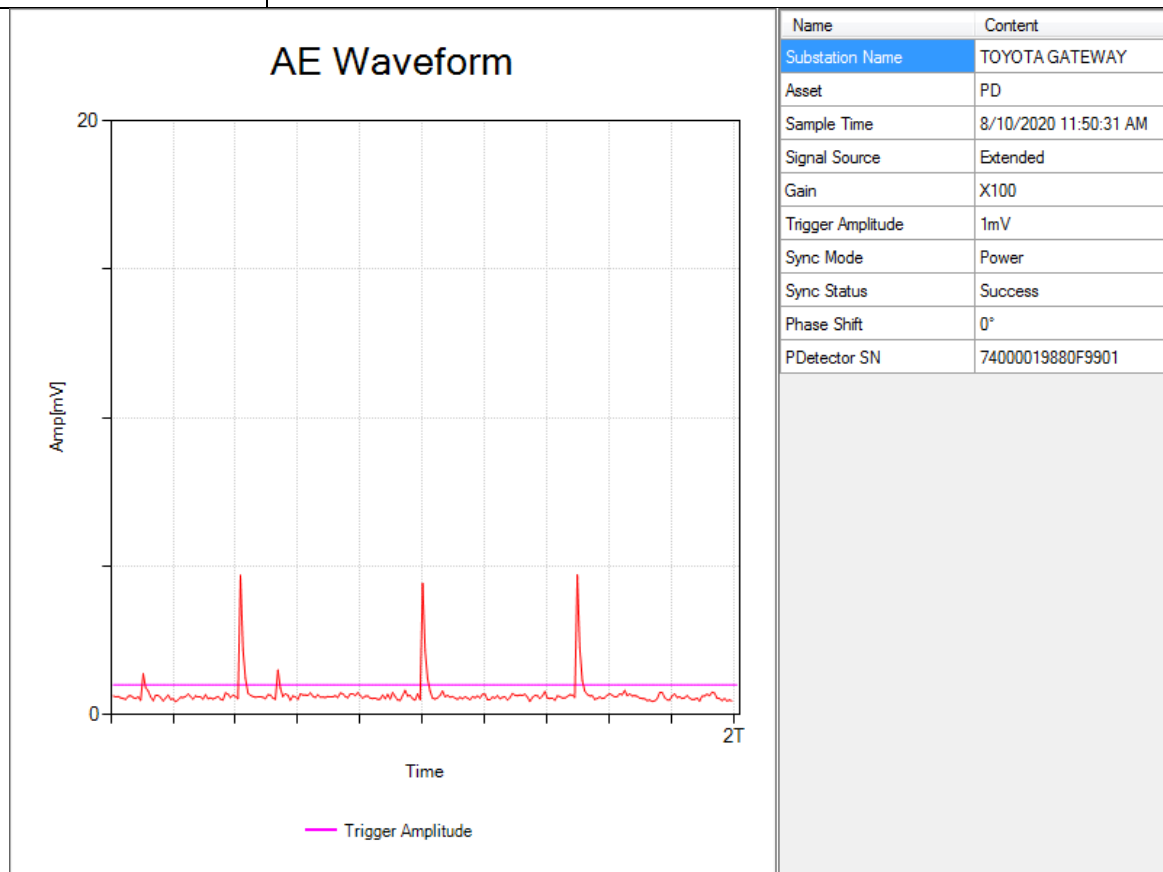
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

16. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ TR2 TR SEC (BACK PANEL)

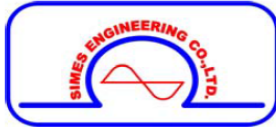
โดยใช้ AE Internal/Extended SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 128
SUBSTATION	GIS	
POSITION	TR2 TR SEC (BACK PANEL)	
VOLTAGE LEVEL	22 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Internal/Extended MODE

CRITERIA	1-5 mV
EVALUATION	Warning



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บริษัท ไชเมส เอ็นจิเนียริง จำกัด (สำนักงานใหญ่)

121 Moo 1 Soi Thananiran , Sukhapibal Road , Tambol Bangsrimuang , Ampur Muang , Nonthaburi 11000

121 หมู่ 1 ซอย ชนะนรินทร์ ถนน สุขภักดิ์ ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

เลขประจำตัวผู้เสียภาษีอากร 0125558021330 อัตราร้อยละ 7

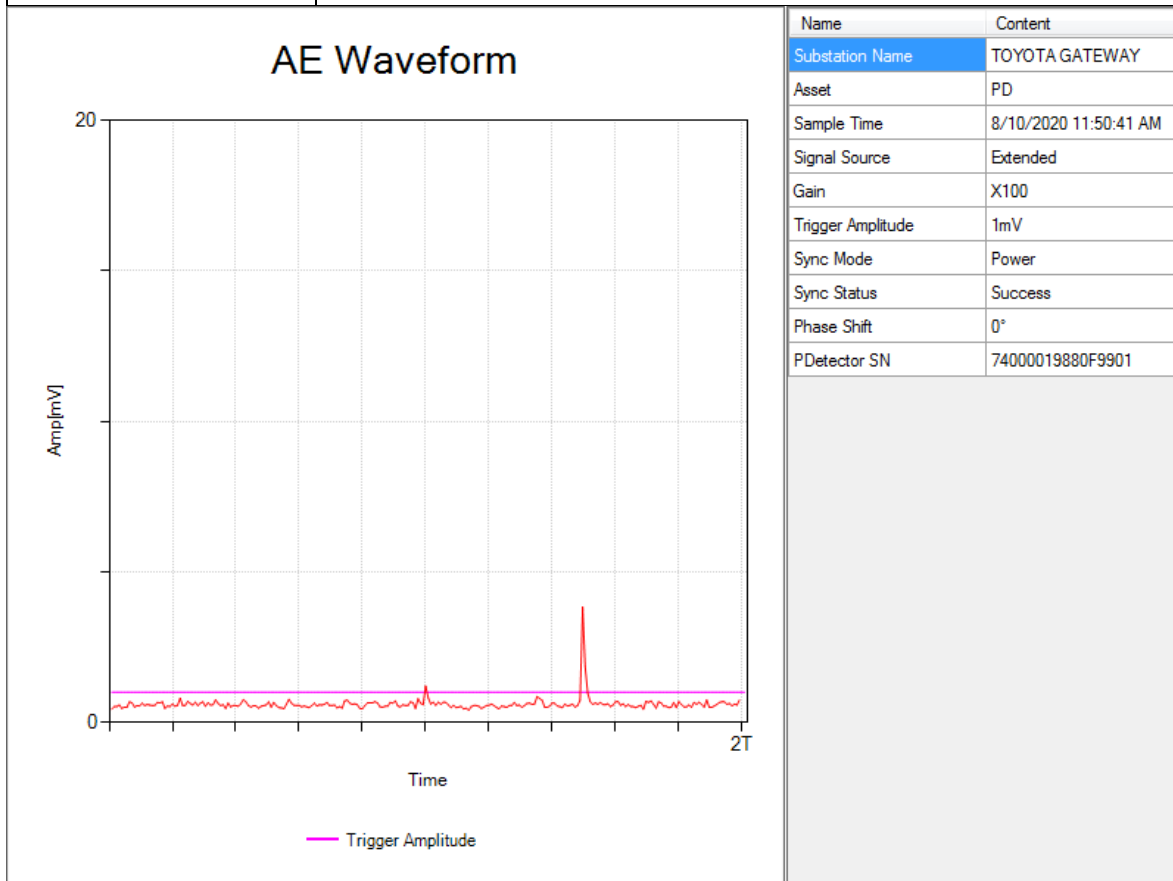
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

17. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ 2-1 FEEDER (BACK PANEL)

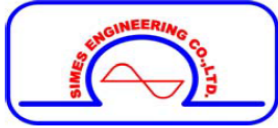
โดยใช้ AE Internal/Extended SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 130
SUBSTATION	GIS	
POSITION	2-1 FEEDER (BACK PANEL)	
VOLTAGE LEVEL	22 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Internal/Extended MODE

CRITERIA	1-5 mV
EVALUATION	Warning



SIMES ENGINEERING CO.,LTD.(Head Office)

บริษัท ไชเมส เอ็นจิเนียริง จำกัด (สำนักงานใหญ่)

121 Moo 1 Soi Thananiran , Sukhapibal Road , Tambol Bangsrimuang , Ampur Muang , Nonthaburi 11000

121 หมู่ 1 ซอย ชนะนรินทร์ ถนน สุขภิบาล ตำบล บางศรีเมือง อําเภอ เมือง จังหวัด นนทบุรี 11000

เลขประจำตัวผู้เสียภาษีอากร 0125558021330 อัตราร้อยละ 7

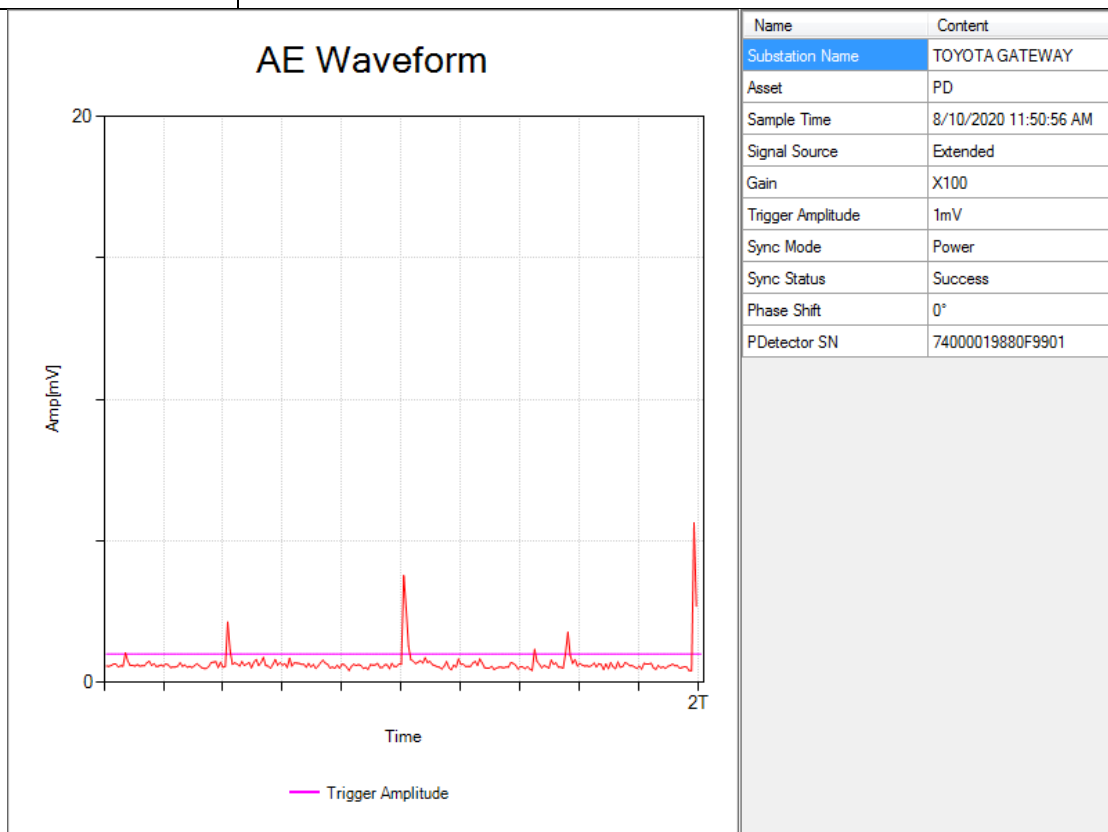
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_eru@yahoo.com

SUMMARY REPORT

18. ตรวจสอบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ 2-2 FEEDER (BACK PANEL)

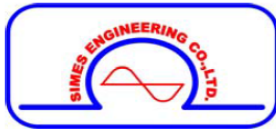
โดยใช้ AE Internal/Extended SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 132
SUBSTATION	GIS	
POSITION	2-2 FEEDER (BACK PANEL)	
VOLTAGE LEVEL	22 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Internal/Extended MODE

CRITERIA	1-5 mV
EVALUATION	Warning



SIMES ENGINEERING CO.,LTD.(Head Office)

บริษัท ไชเมส เอ็นจิเนียริง จำกัด (สำนักงานใหญ่)

121 Moo 1 Soi Thananiran , Sukhapibal Road , Tambol Bangsrimuang , Ampur Muang , Nonthaburi 11000

121 หมู่ 1 ซอย ชนะนรินทร์ ถนน สุขุมวิท ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

เลขประจำตัวผู้เสียภาษีอากร 0125558021330 อัตราร้อยละ 7

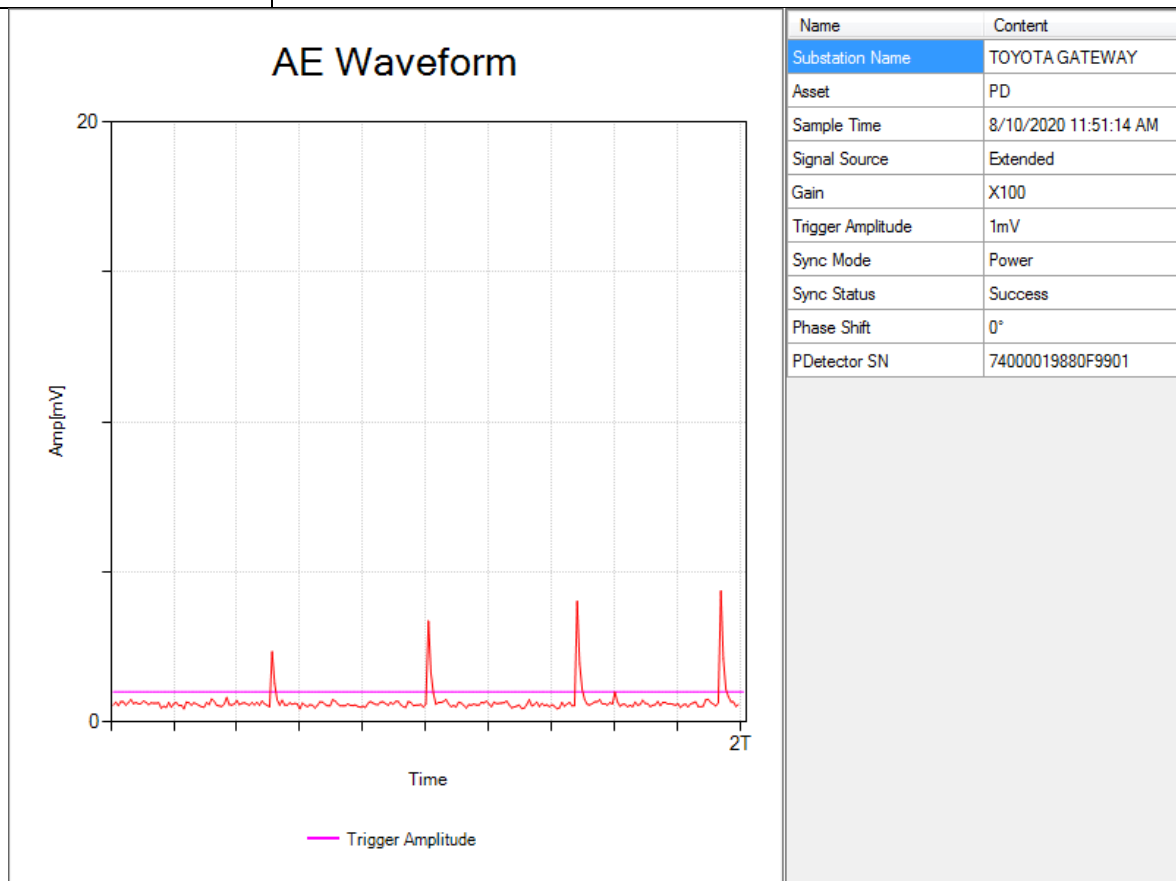
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

19. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ 2-3 FEEDER (BACK PANEL)

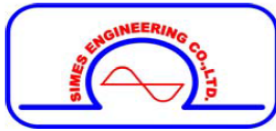
โดยใช้ AE Internal/Extended SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 134
SUBSTATION	GIS	
POSITION	2-3 FEEDER (BACK PANEL)	
VOLTAGE LEVEL	22 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Internal/Extended MODE

CRITERIA	1-5 mV
EVALUATION	Warning



SIMES ENGINEERING CO.,LTD.(Head Office)

บริษัท ไชเมส เอ็นจิเนียริ่ง จำกัด (สำนักงานใหญ่)

121 Moo 1 Soi Thananiran , Sukhapibal Road , Tambol Bangsrimuang , Ampur Muang , Nonthaburi 11000

121 หมู่ 1 ซอย ชนะนรินทร์ ถนน สุขุมวิท ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

เลขประจำตัวผู้เสียภาษีอากร 0125558021330 อัตราร้อยละ 7

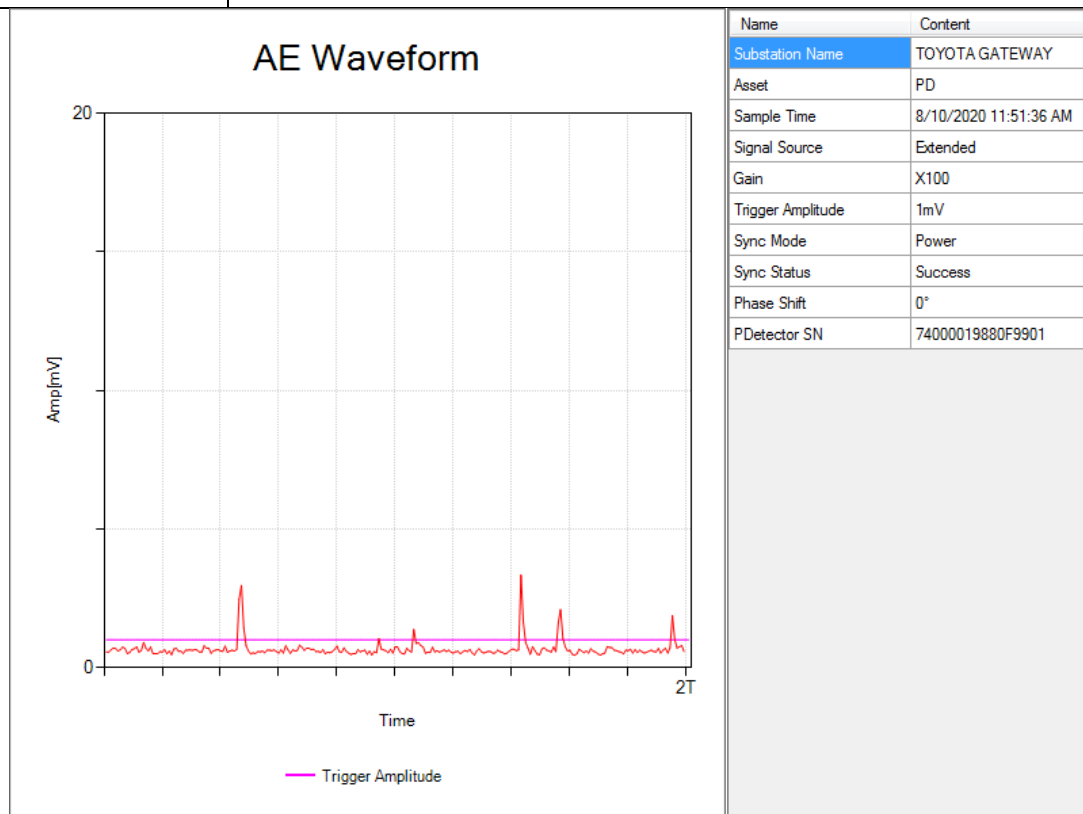
Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

SUMMARY REPORT

20. ตรวจพบสัญญาณการเกิด PARTIAL DISCHARGE (PD) ที่ 2-4 FEEDER (BACK PANEL)

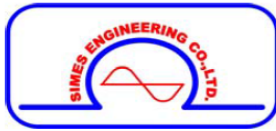
โดยใช้ AE Internal/Extended SENSOR มีจุดที่ตรวจพบสัญญาณดังนี้

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.	PAGE 136
SUBSTATION	GIS	
POSITION	2-4 FEEDER (BACK PANEL)	
VOLTAGE LEVEL	22 KV	



PARTIAL DISCHARGE DETECTION METHOD BY AE Internal/Extended MODE

CRITERIA	1-5 mV
EVALUATION	Warning



SIMES ENGINEERING CO.,LTD.(Head Office)

บริษัท ไชเมส เอ็นจิเนียริง จำกัด (สำนักงานใหญ่)

121 Moo 1 Soi Thananiran , Sukhapibal Road , Tambol Bangsrimuang , Ampur Muang , Nonthaburi 11000

121 หมู่ 1 ซอย ชะนิรันดร์ ถนน สุขุมวิท ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

เลขประจำตัวผู้เสียภาษีอากร 0125558021330 อัตราร้อยละ 7

Tel. 02-8828968 , 081-9146766 , 081-8228835 FAX 02-4462334 E- mail address : chanvit_cru@yahoo.com

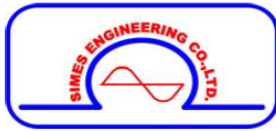
SUMMARY REPORT



PARTIAL DISCHARGE DETECTED BY VISUALLY INSPECT



PARTIAL DISCHARGE DETECTED BY VISUALLY INSPECT



SIMES ENGINEERING CO.,LTD.(Head Office)

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121 หมู่ 1 ซอย ชนะนिरันตร์ ถนน สุขาภิบาล ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

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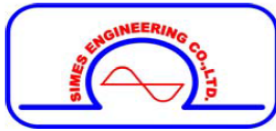
SUMMARY REPORT



PARTIAL DISCHARGE EFFECT – MANY RUST AND HIGH SPOT OCCUR DUE TO CHEMICAL REACTION



PARTIAL DISCHARGE DETECTED BY HFCT



SIMES ENGINEERING CO.,LTD.(Head Office)

บริษัท ไชเมส เอ็นจิเนียริง จำกัด (สำนักงานใหญ่)

121 Moo 1 Soi Thananiran , Sukhapibal Road , Tambol Bangsrimuang , Ampur Muang , Nonthaburi 11000

121 หมู่ 1 ซอย ชะนะนีนันตร์ ถนน สุขาภิบาล ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

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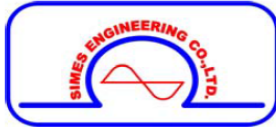
SUMMARY REPORT



PARTIAL DISCHARGE EFFECT – MANY RUST AND HIGH SPOT TEMPERATURE OCCUR



PARTIAL DISCHARGE EFFECT – MANY RUST AND HIGH SPOT TEMPERATURE OCCUR



SIMES ENGINEERING CO.,LTD.(Head Office)

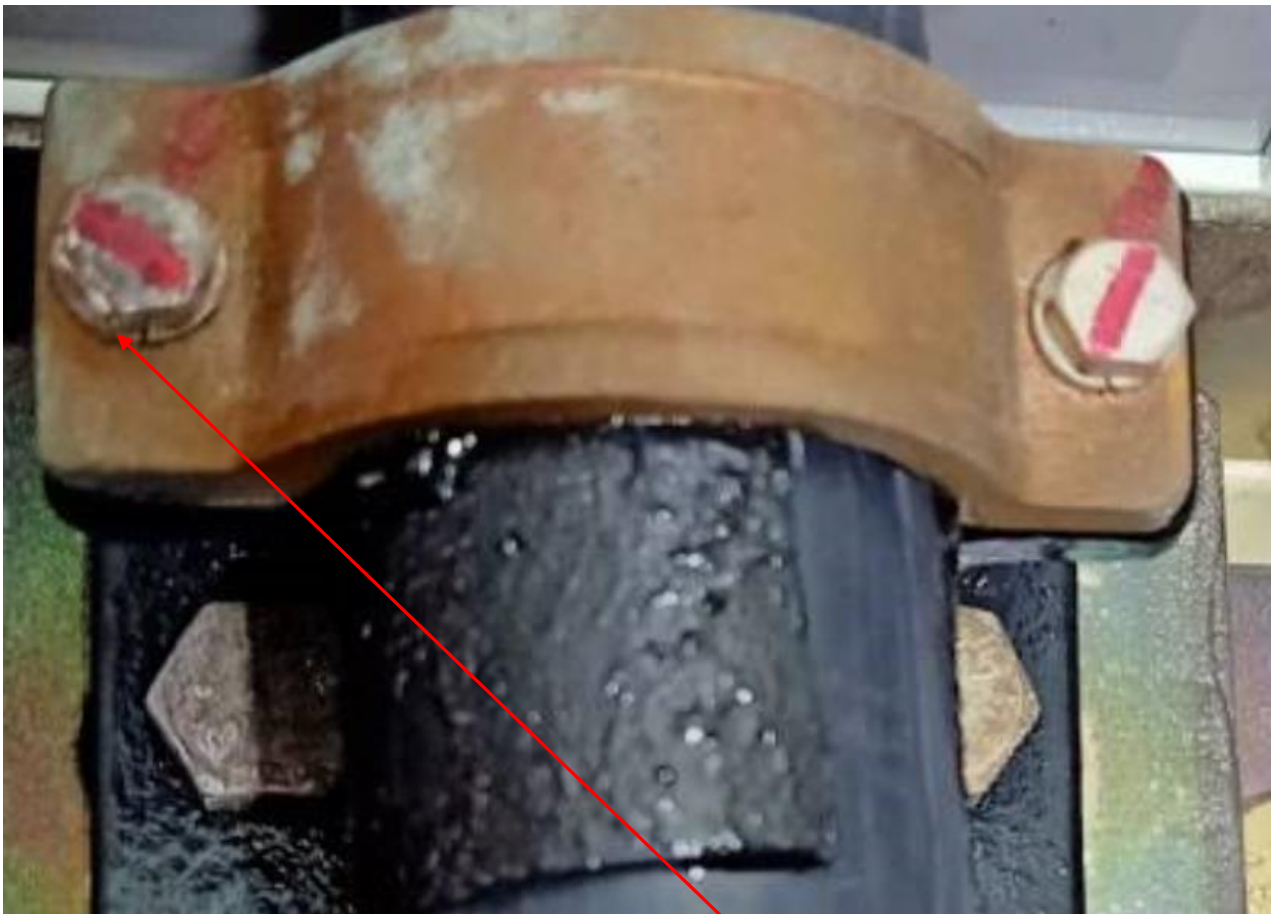
บริษัท ไชเมส เอ็นจิเนียริง จำกัด (สำนักงานใหญ่)

121 Moo 1 Soi Thananiran , Sukhapibal Road , Tambol Bangsrimuang , Ampur Muang , Nonthaburi 11000

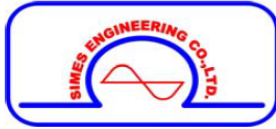
121 หมู่ 1 ซอย ชนะนรินทร์ ถนน สุขภิบาล ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

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PARTIAL DISCHARGE EFFECT – MANY RUST AND HIGH SPOT TEMPERATURE OCCUR



SIMES ENGINEERING CO.,LTD.(Head Office)

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121 Moo 1 Soi Thananiran , Sukhapibal Road , Tambol Bangsrimuang , Ampur Muang , Nonthaburi 11000

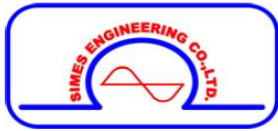
121 หมู่ 1 ซอย ชนะนिरันต์ ถนน สุขภิบาล ตำบล บางศรีเมือง อำเภอ เมือง จังหวัด นนทบุรี 11000

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PARTIAL DISCHARGE EFFECT – MANY RUST AND HIGH SPOT TEMPERATURE OCCUR



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SUMMARY REPORT

สรุปผลการตรวจสอบ Partial discharge at 115 KV , 22 KV Substation

ในวันที่ 8 กรกฎาคม 2020 ทางบริษัท NISSIN THAILAND ได้มอบหมายให้บริษัท SIMES ได้เข้าไปตรวจสอบการเกิด PARTIAL DISCHARGE ในโรงงาน TOYOTA GATEWAY (THAILAND) CO.,LTD. และได้ตรวจพบสัญญาณ PARTIAL DISCHARGE ที่บริเวณ SUBSTATION 115 KV

ทางด้าน 22 KV BAY1 เกิดสัญญาณ PARTIAL DISCHARGE อยู่ในระดับต่ำ ควรทำการติดตามผลในปีต่อไป

ทางด้าน 22 KV BAY 2 เกิดสัญญาณ PARTIAL DISCHARGE ในระดับปานกลาง ควรวางแผนดำเนินการแก้ไข

ชาญวิทย์ คุรุแก้ว

ผู้จัดการ

081-8208835

PARTIAL DISCHARGE REPORT

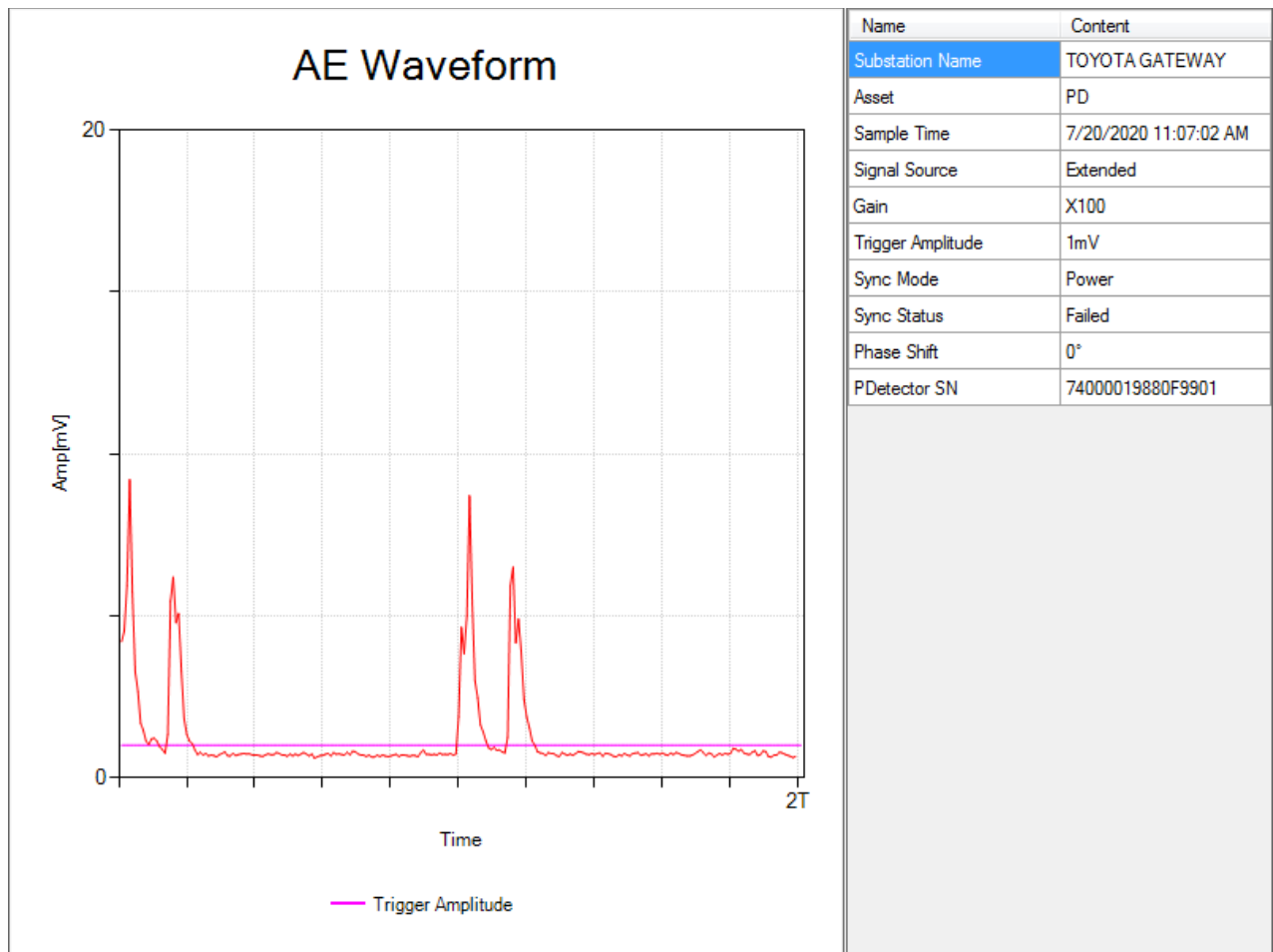
SUBSTATION : 115 KV

POSITION : LA 115 KV

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Ultrasonic Dish MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	DS PHASE R
VOLTAGE LEVEL	115 KV

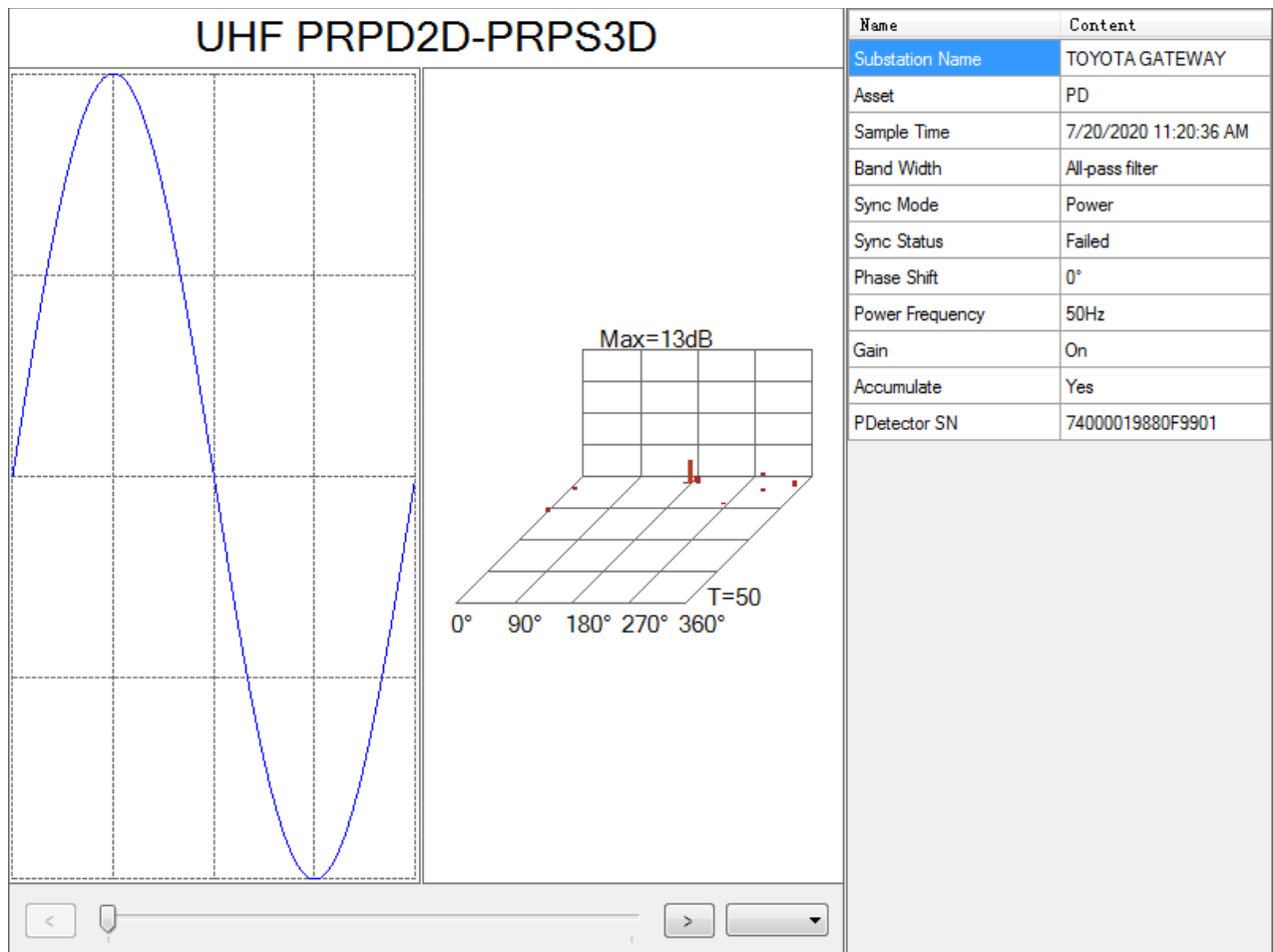


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	The partial discharge should be inspected in the next year
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	LA 115 KV CABLE PHASE R
VOLTAGE LEVEL	115 KV

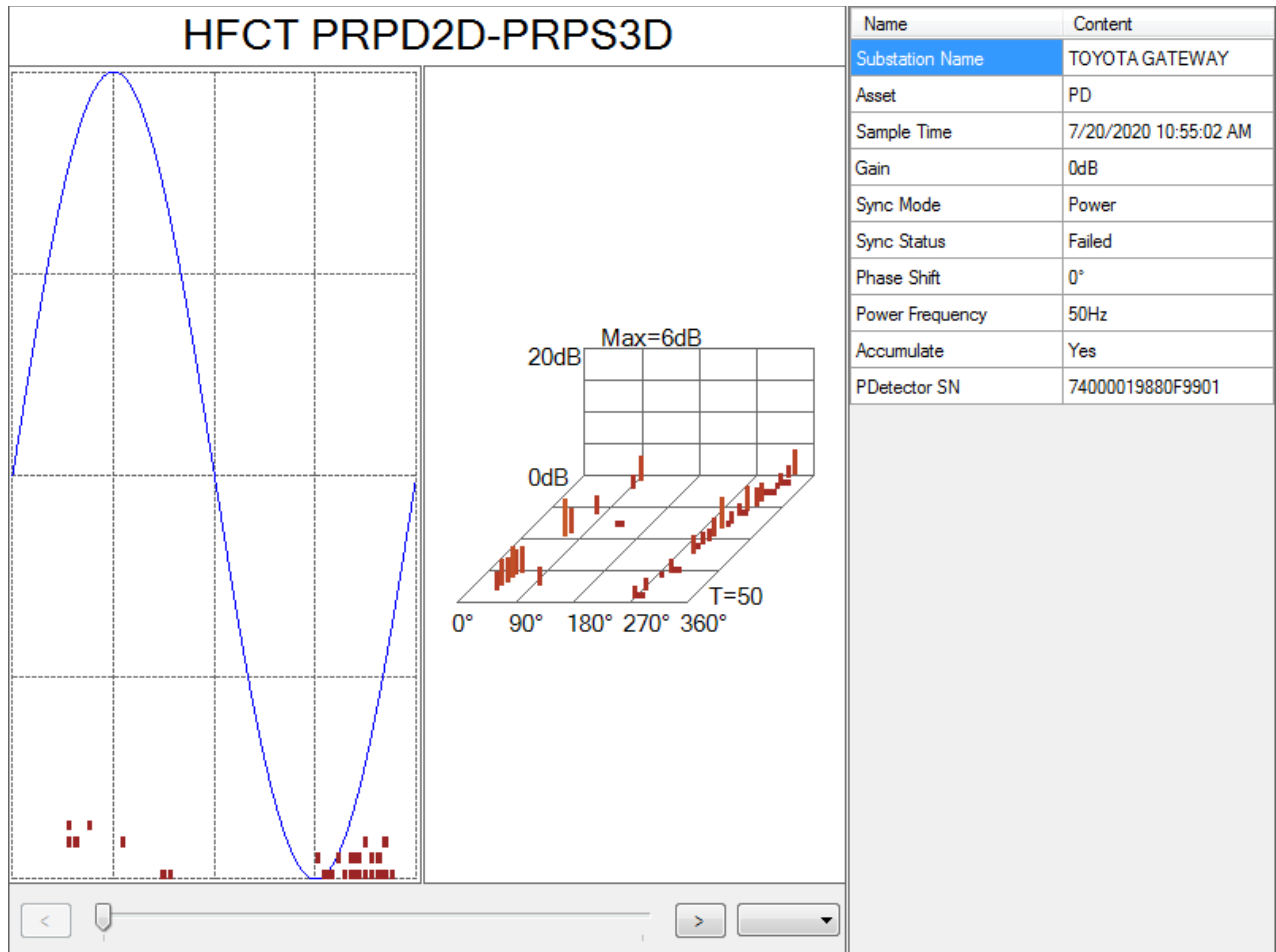


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	LA 115 KV CABLE PHASE R
VOLTAGE LEVEL	115 KV

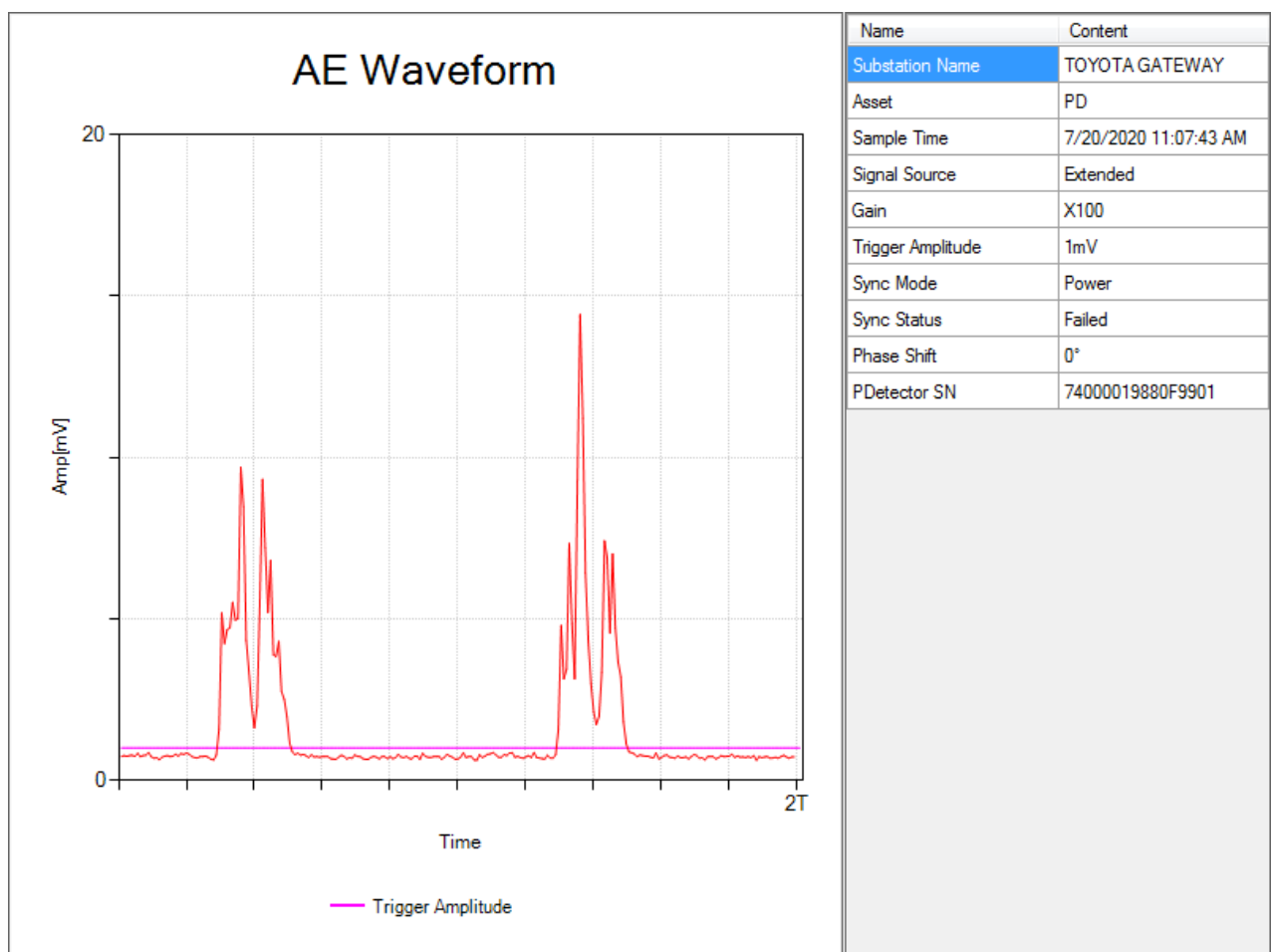


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Ultrasonic Dish MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	DS PHASE Y
VOLTAGE LEVEL	115 KV

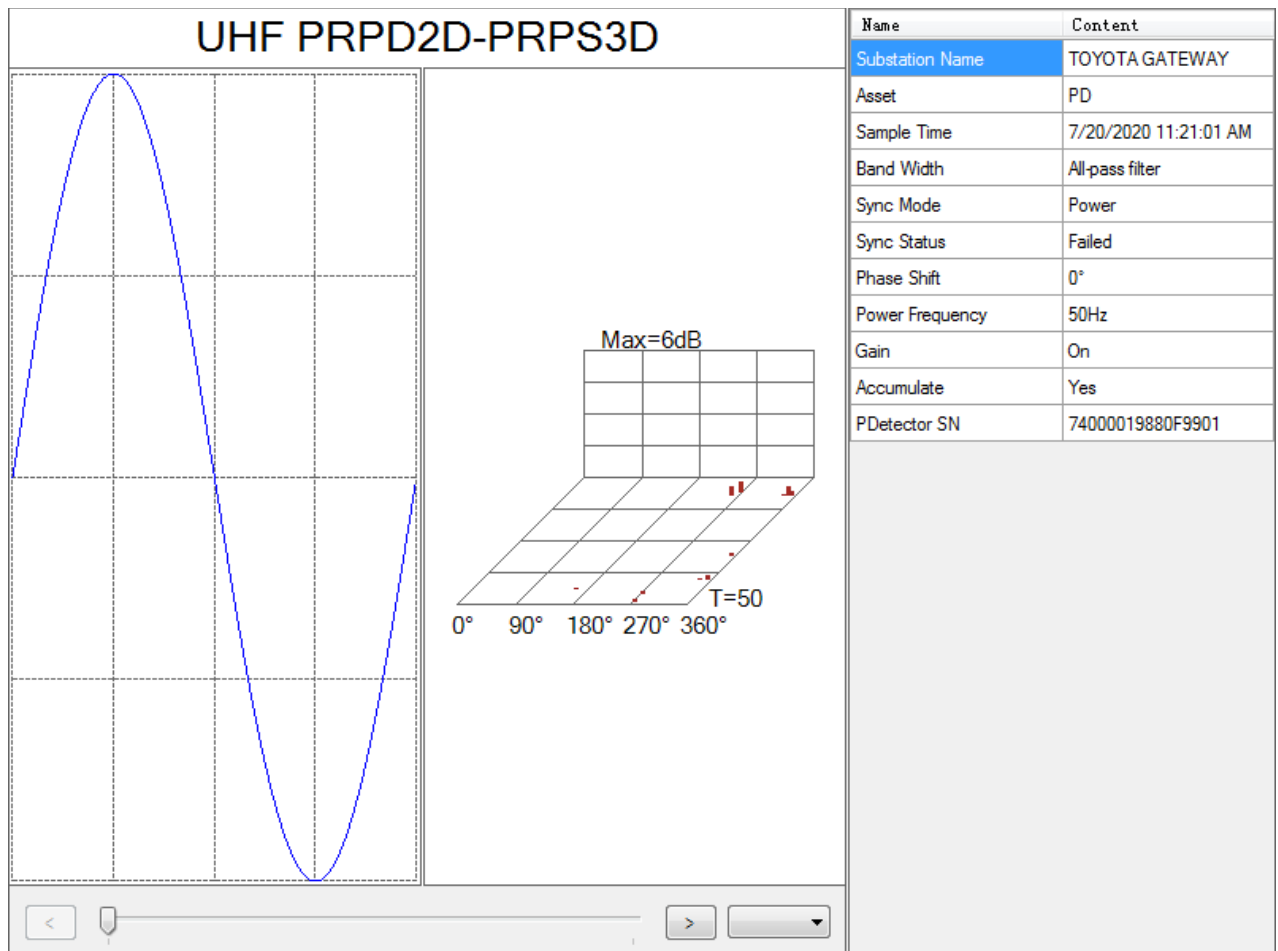


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	The partial discharge should be inspected in the next year
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	LA 115 KV CABLE PHASE Y
VOLTAGE LEVEL	115 KV

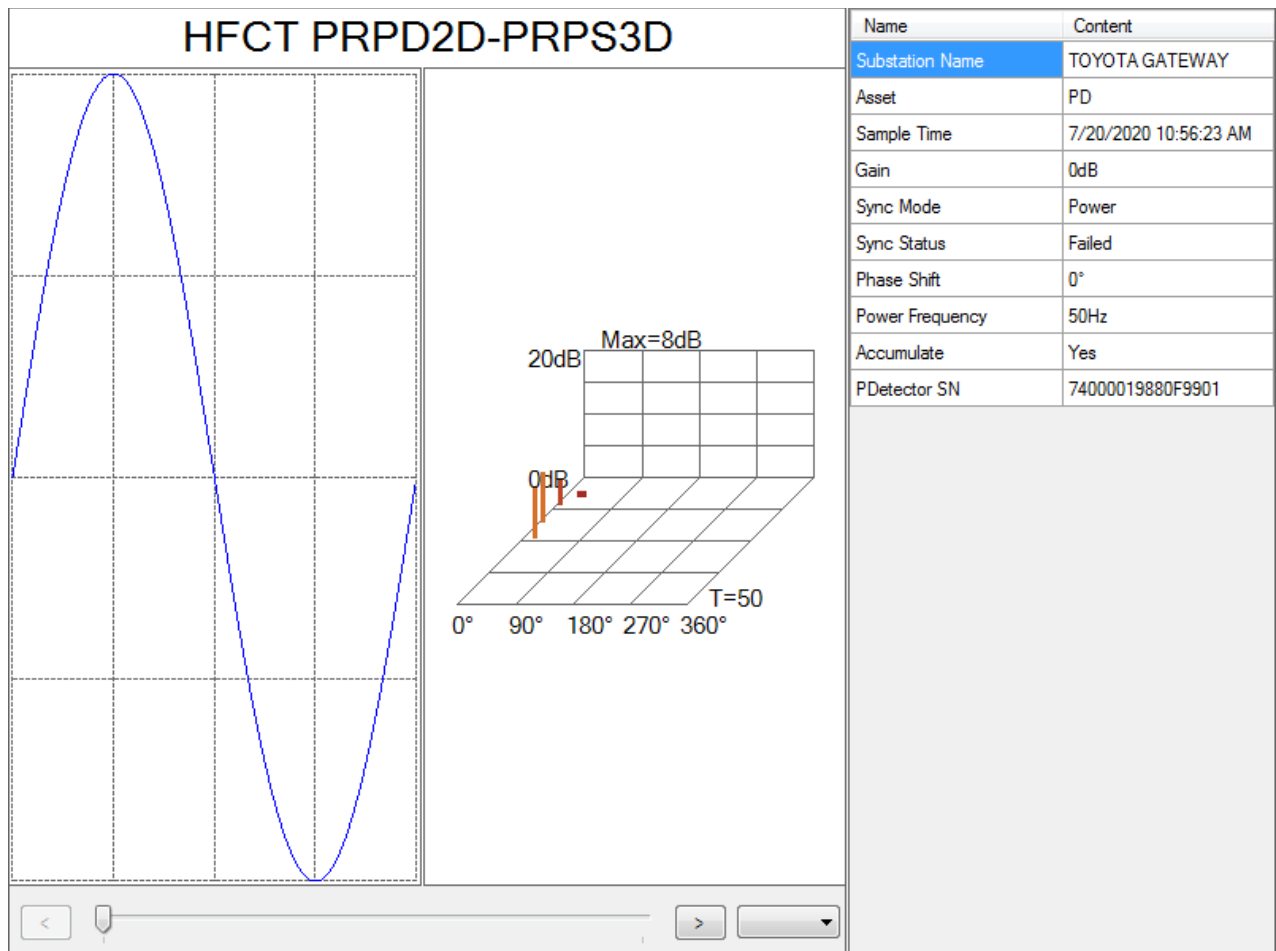


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	LA 115 KV CABLE PHASE Y
VOLTAGE LEVEL	115 KV

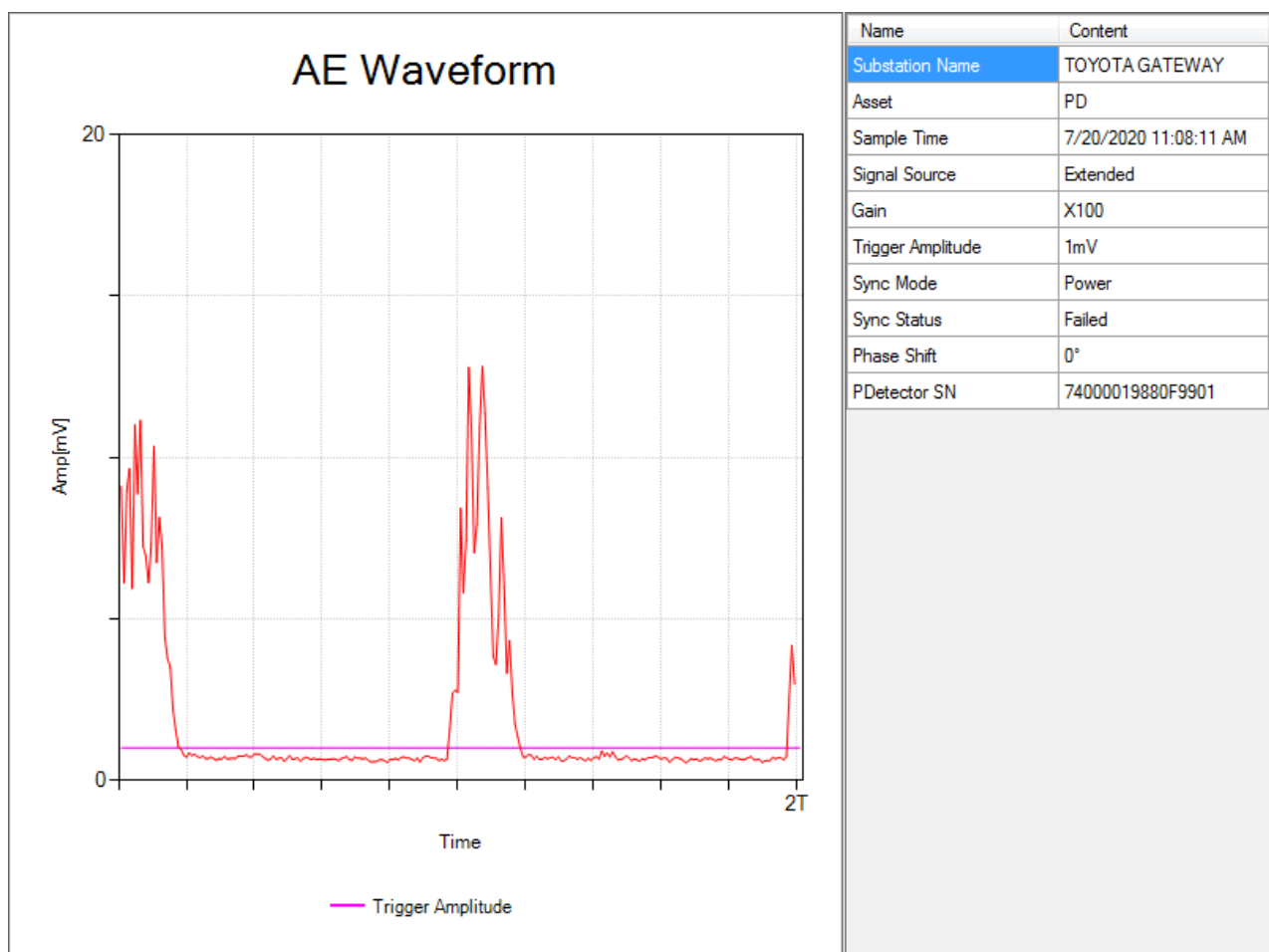


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Ultrasonic Dish MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	DS PHASE B
VOLTAGE LEVEL	115 KV

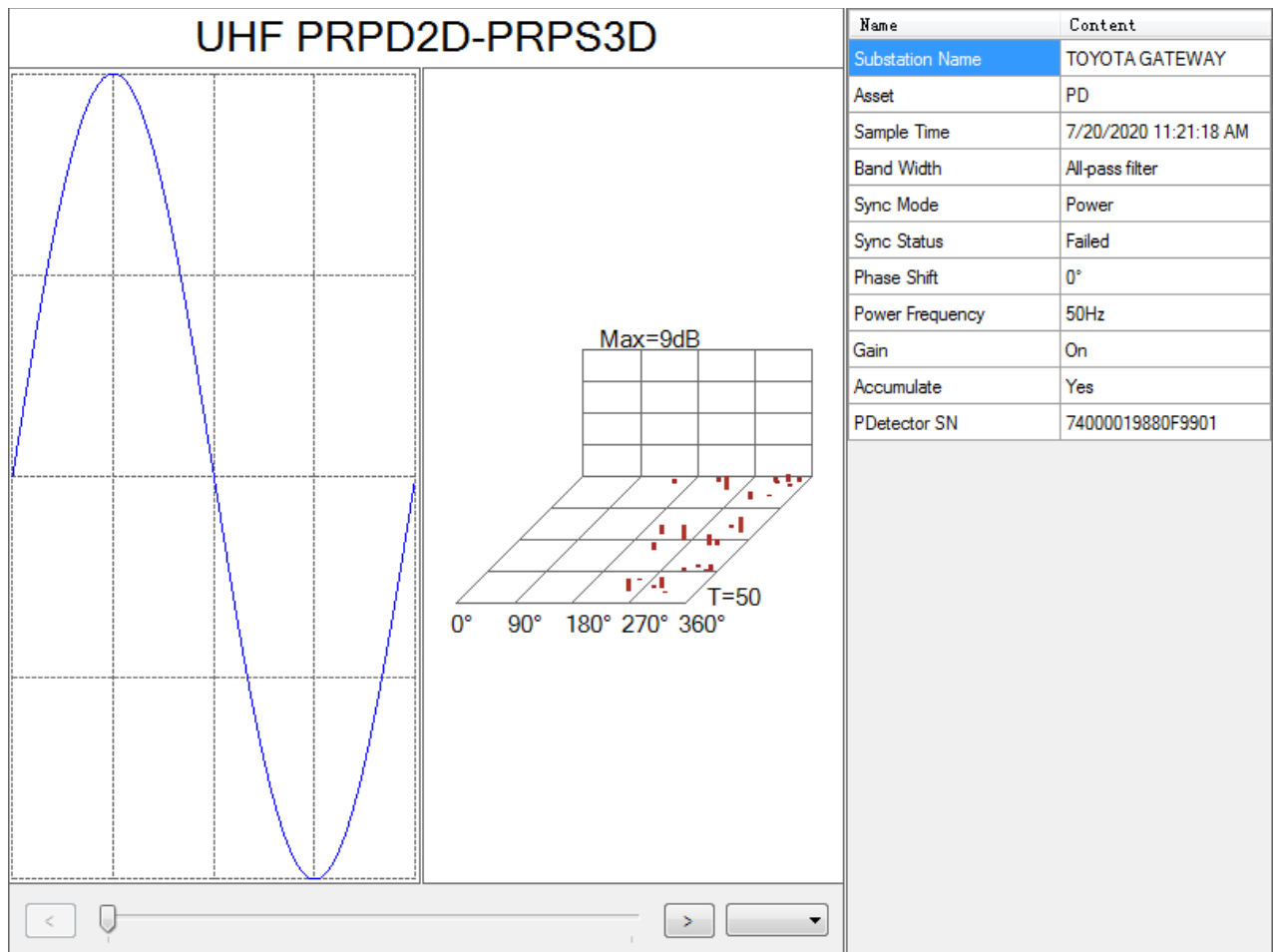


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	The partial discharge should be inspected in the next year
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	LA 115 KV CABLE PHASE B
VOLTAGE LEVEL	115 KV

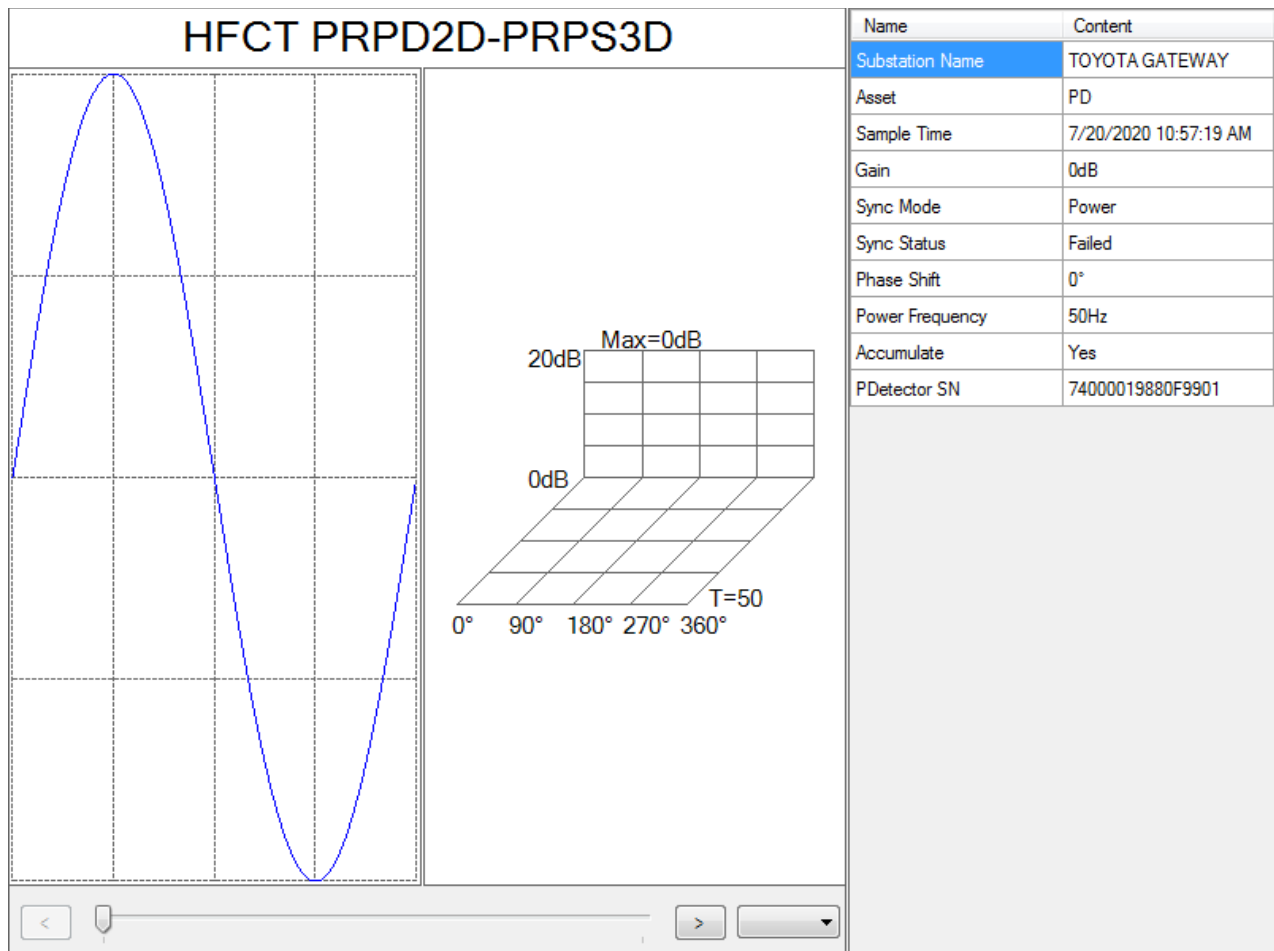


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	LA 115 KV CABLE PHASE B
VOLTAGE LEVEL	115 KV

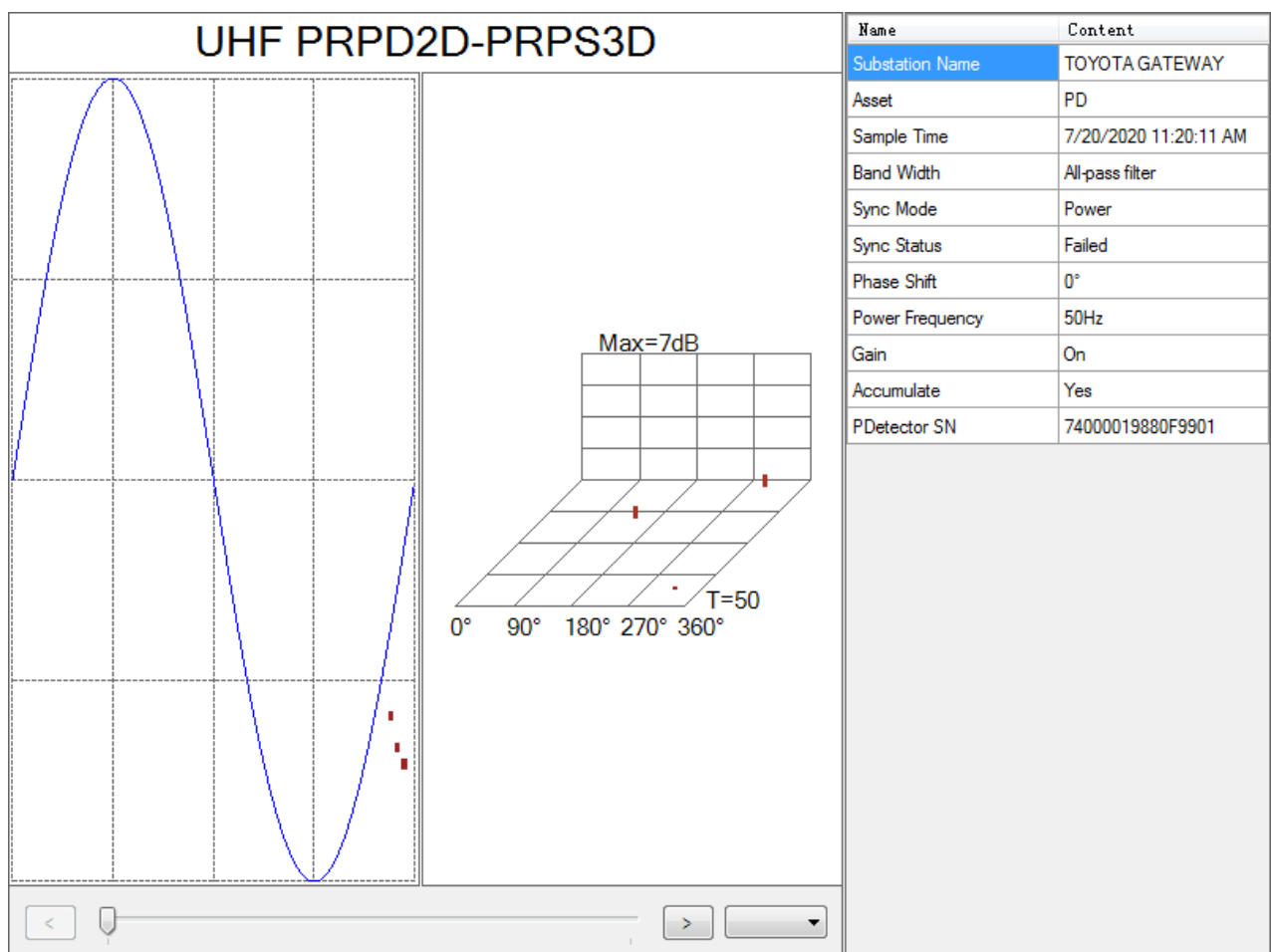


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	POLE 115 KV (1)
VOLTAGE LEVEL	115 KV

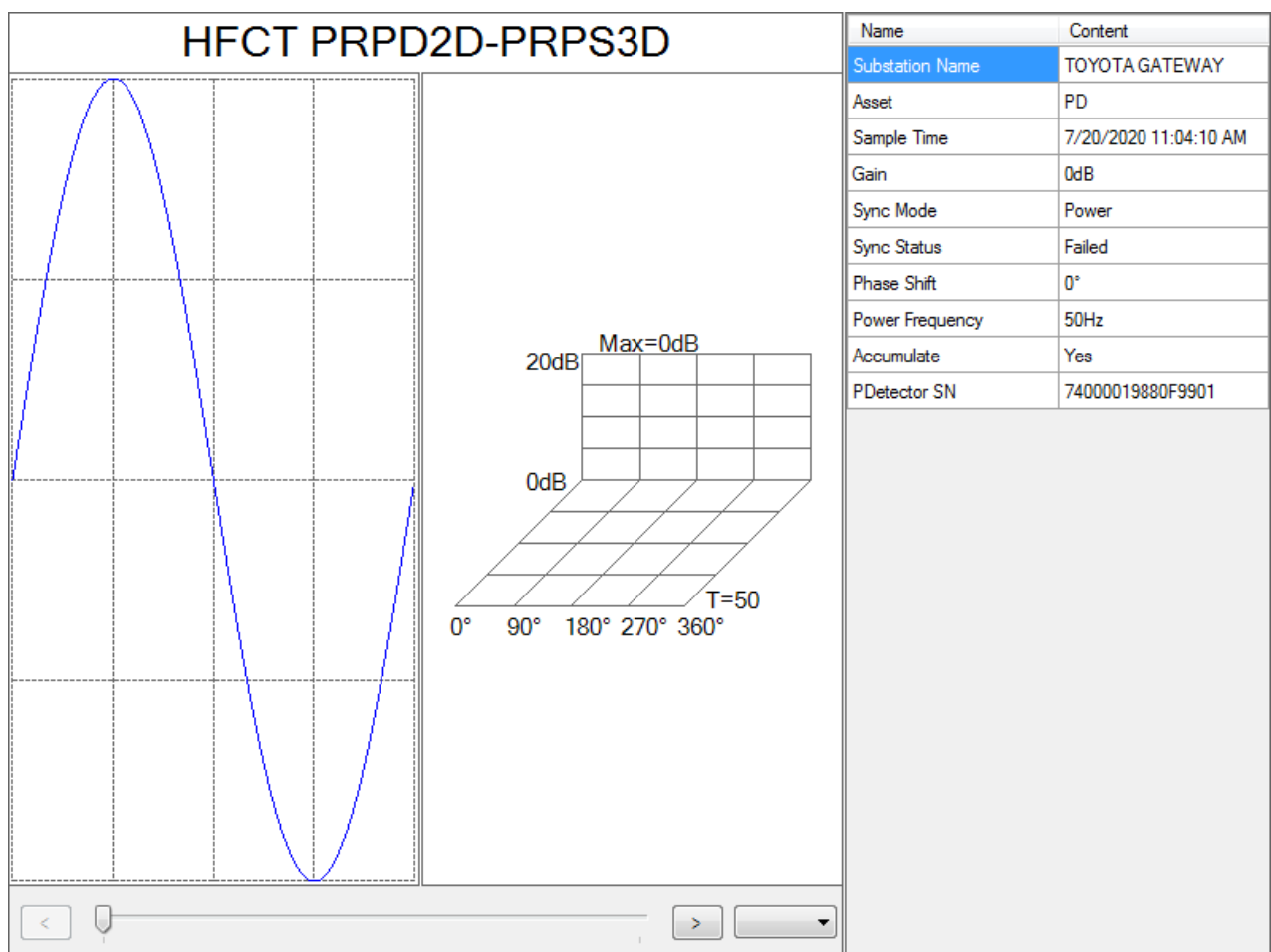


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	POLE 115 KV (2)
VOLTAGE LEVEL	115 KV

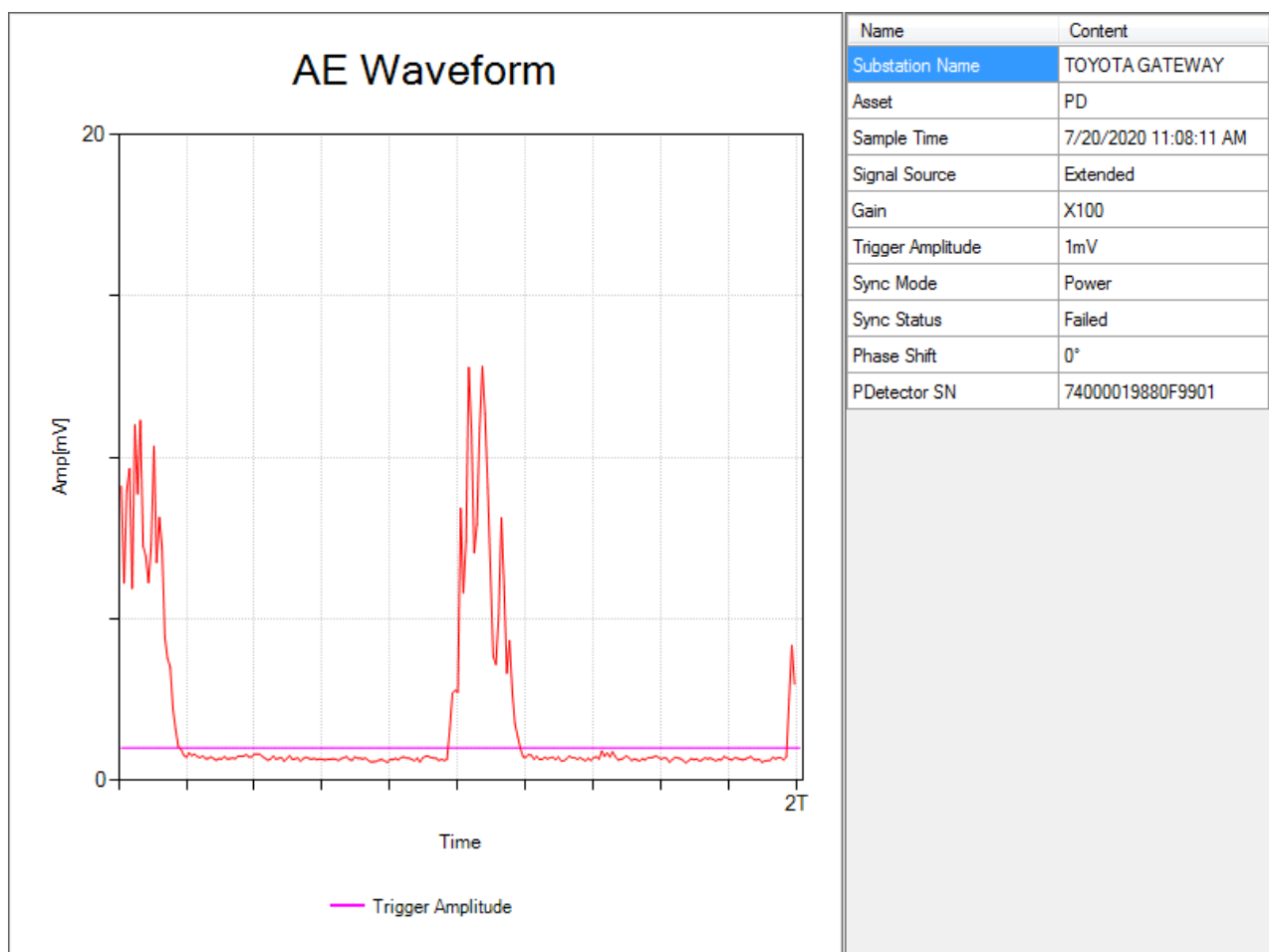


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Ultrasonic Dish MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	PT PHASE R
VOLTAGE LEVEL	115 KV

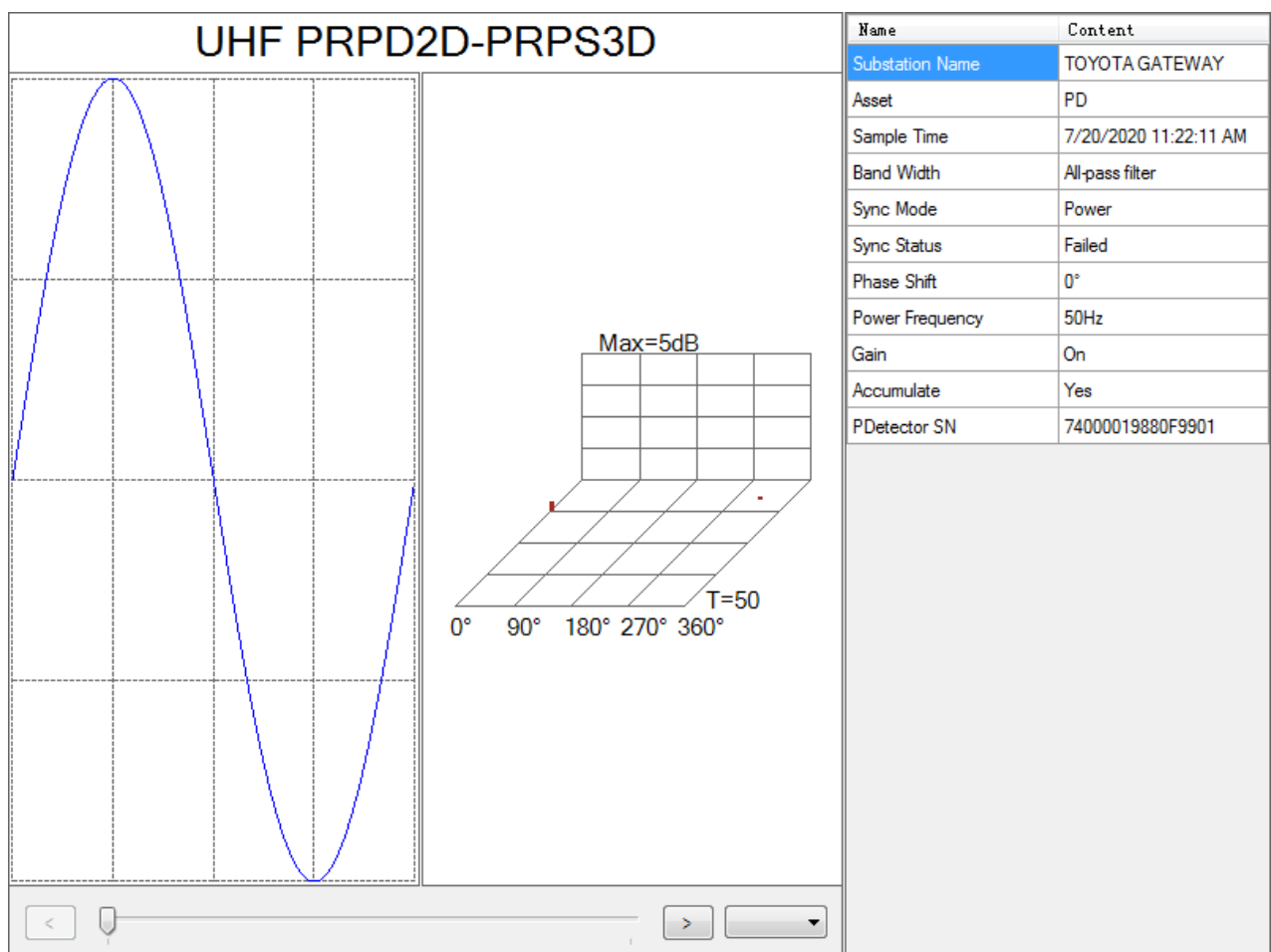


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	PT PHASE R
VOLTAGE LEVEL	115 KV

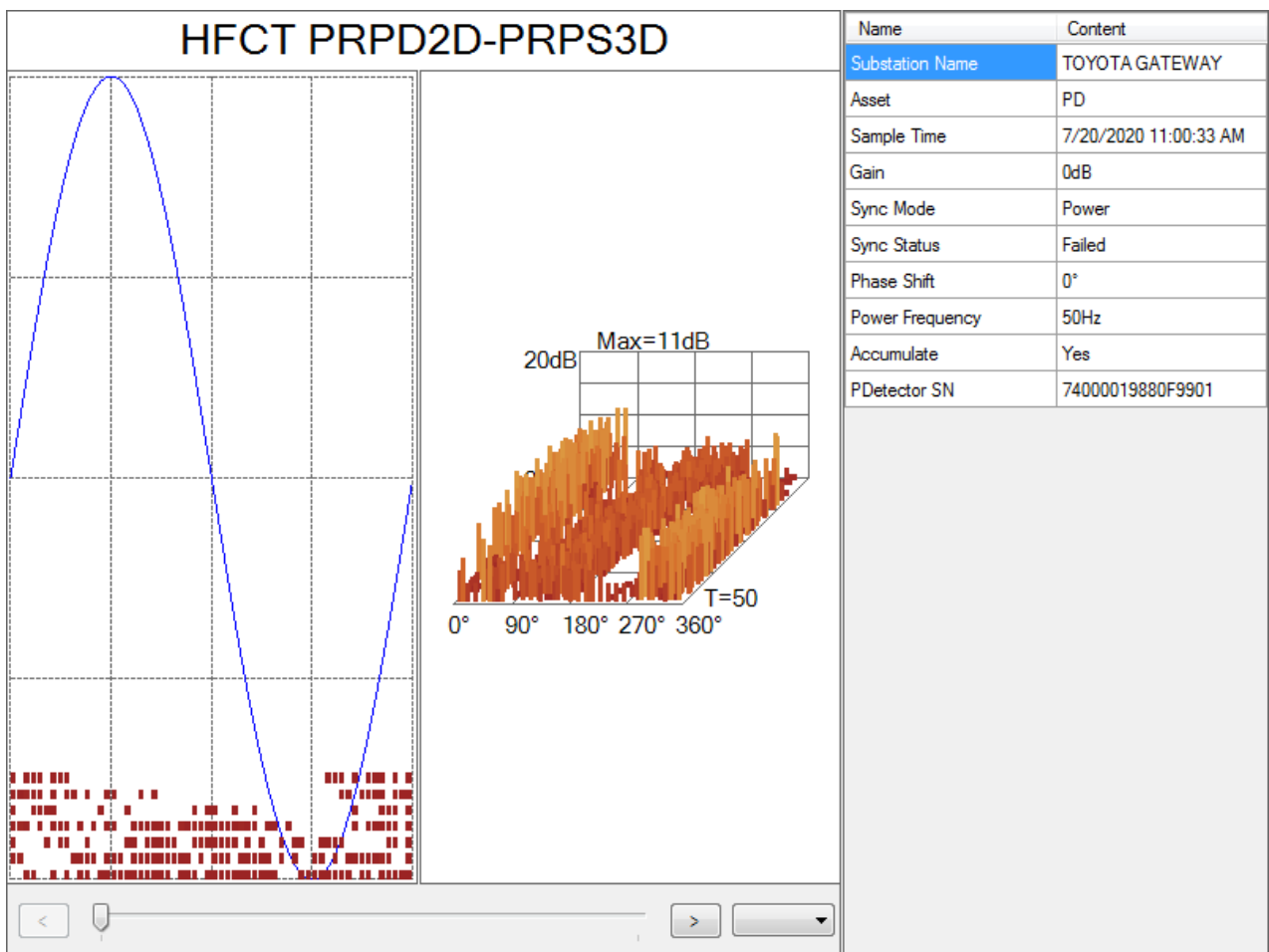


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	PT PHASE R
VOLTAGE LEVEL	115 KV

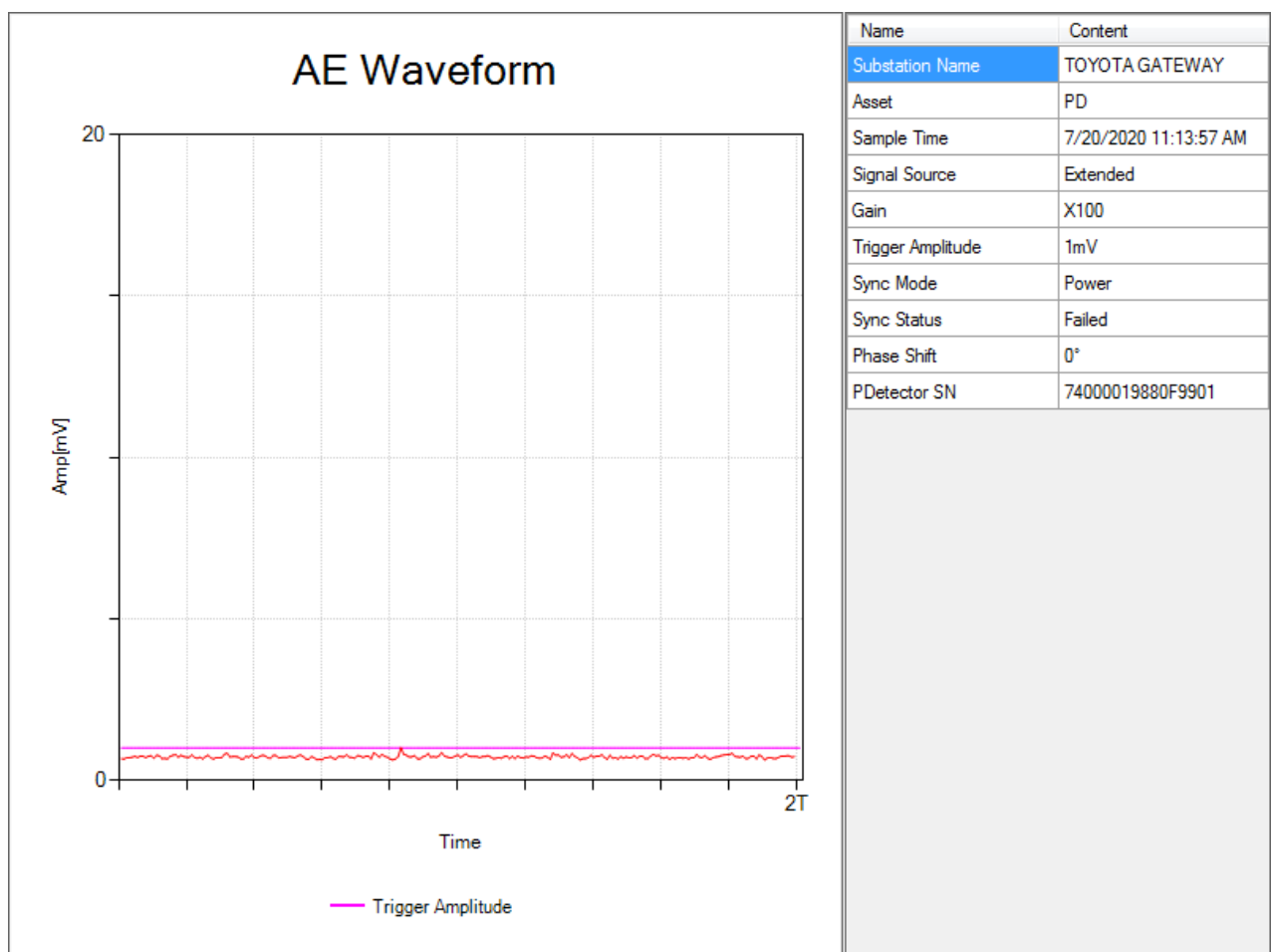


COMMENT	Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	The partial discharge should be inspected in the next year
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	PT PHASE Y
VOLTAGE LEVEL	115 KV

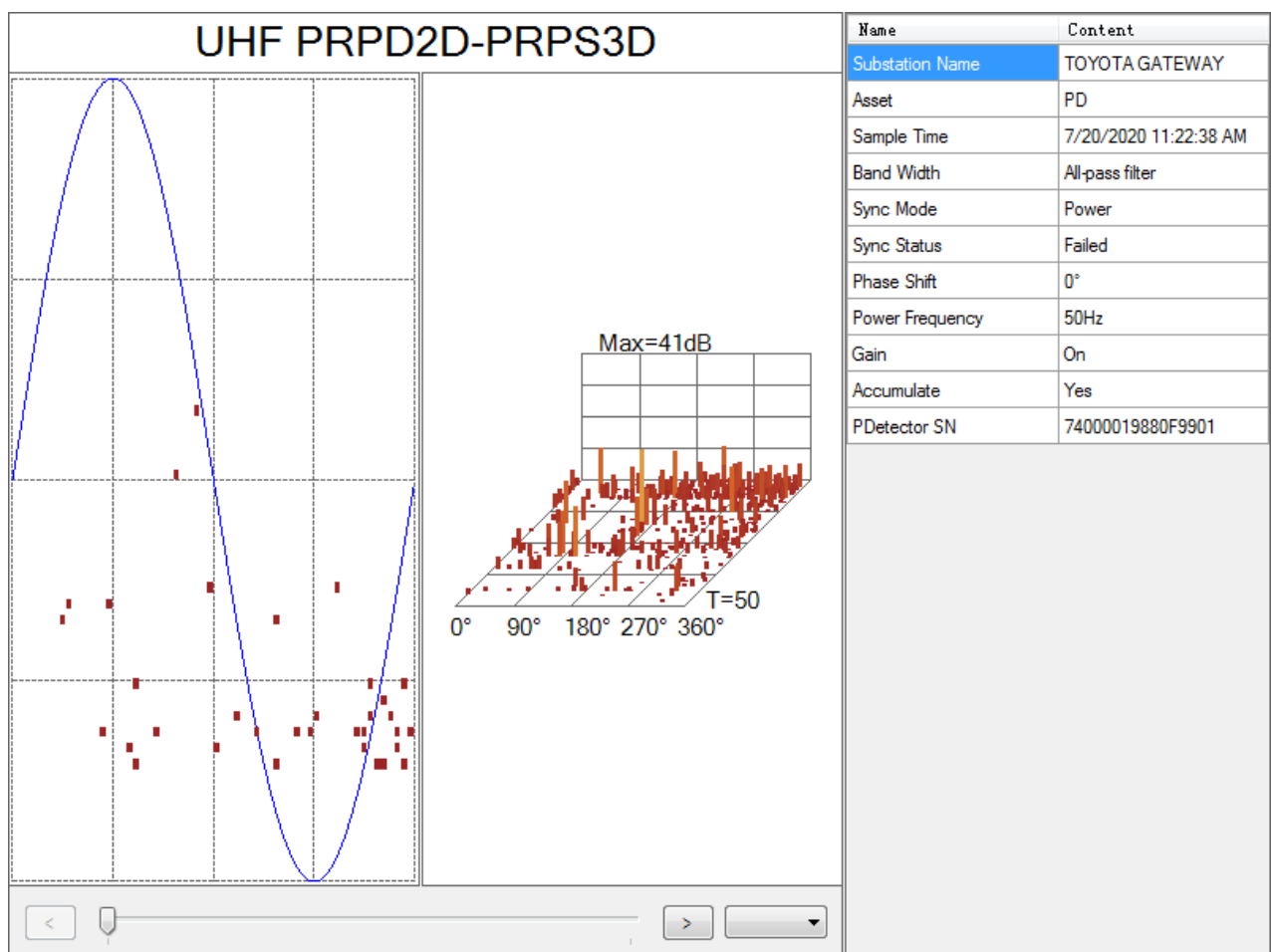


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	PT PHASE Y
VOLTAGE LEVEL	115 KV

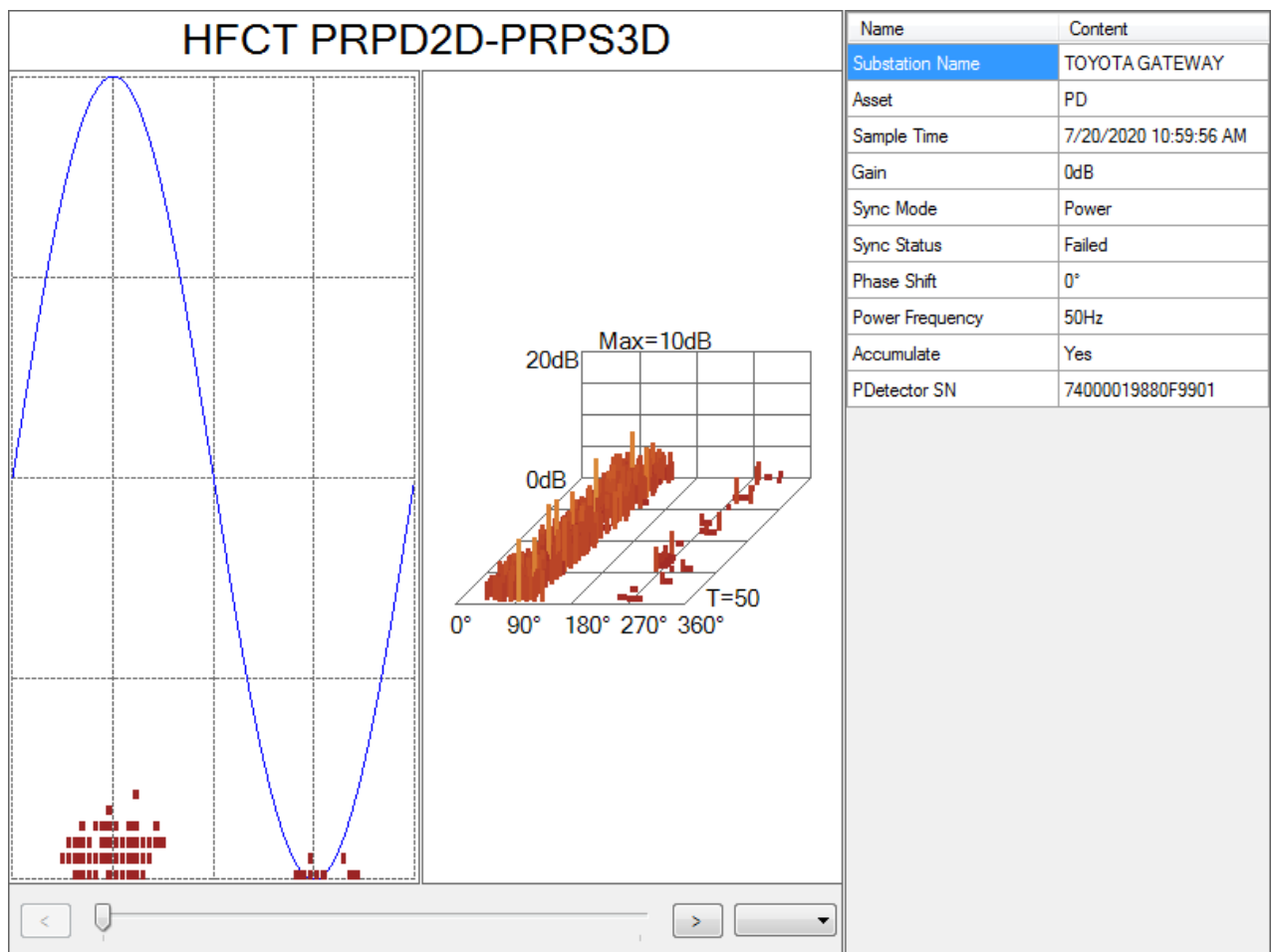


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	PT PHASE Y
VOLTAGE LEVEL	115 KV

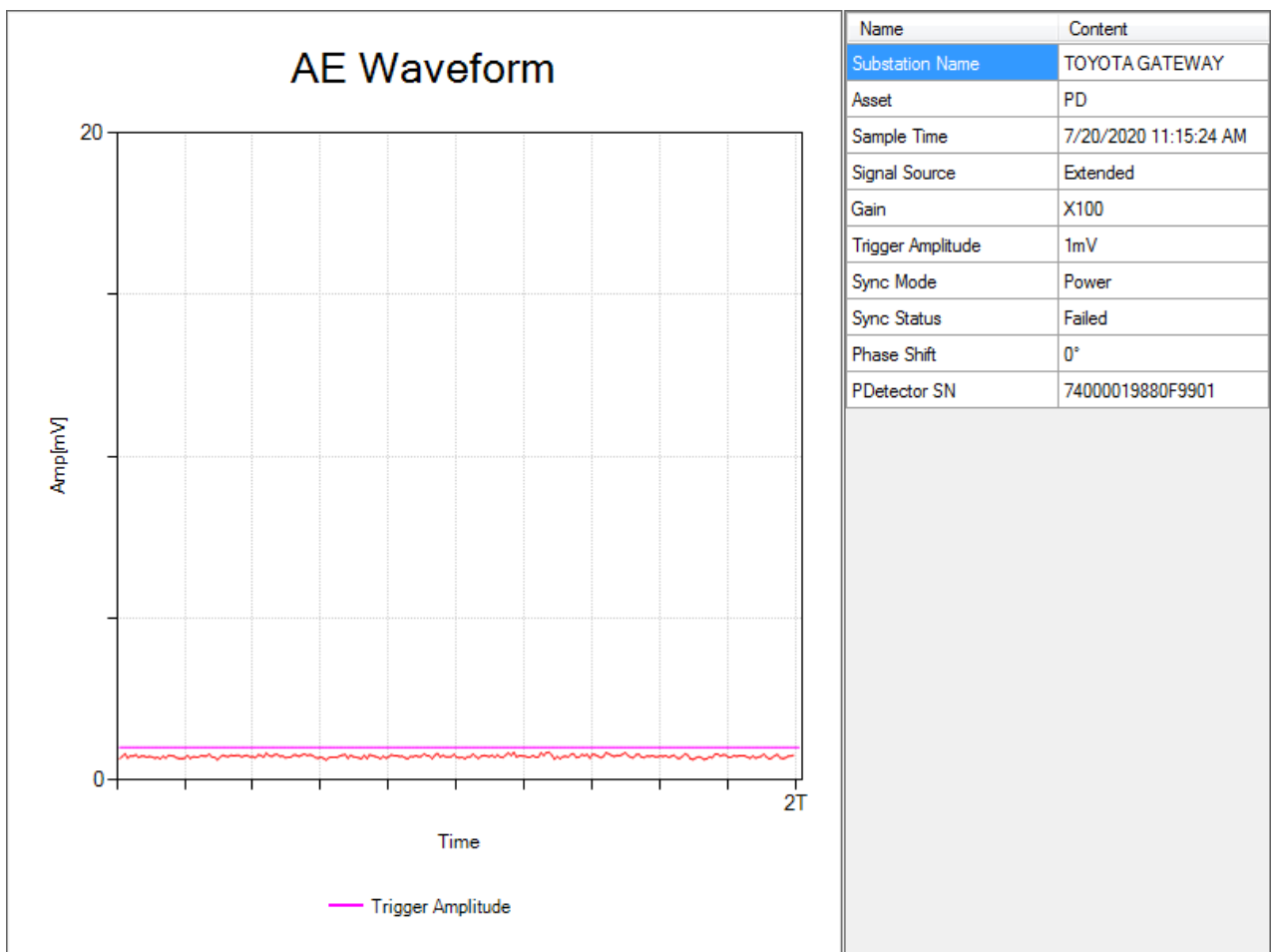


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Ultrasonic Dish MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	PT PHASE B
VOLTAGE LEVEL	115 KV

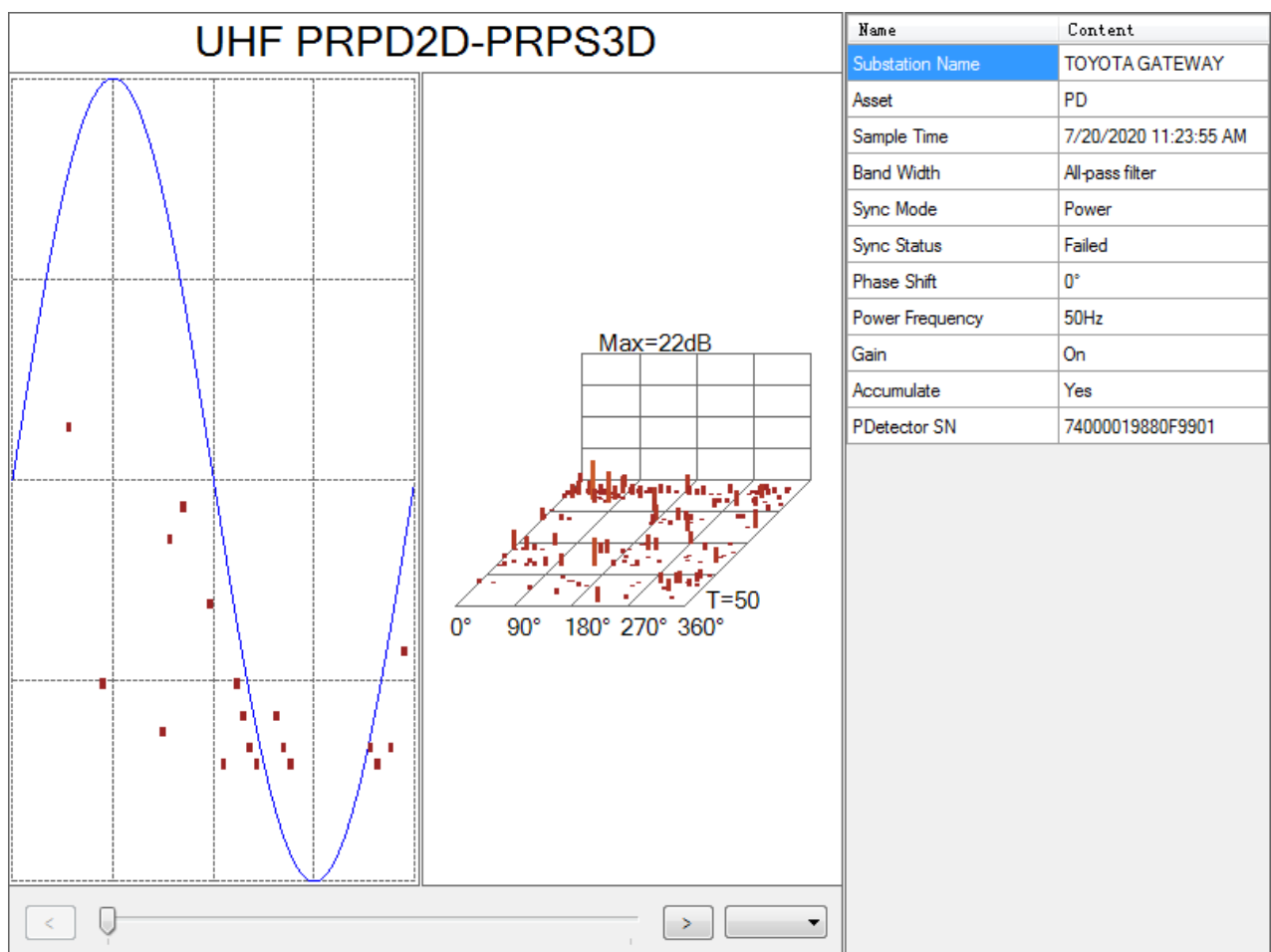


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	PT PHASE B
VOLTAGE LEVEL	115 KV

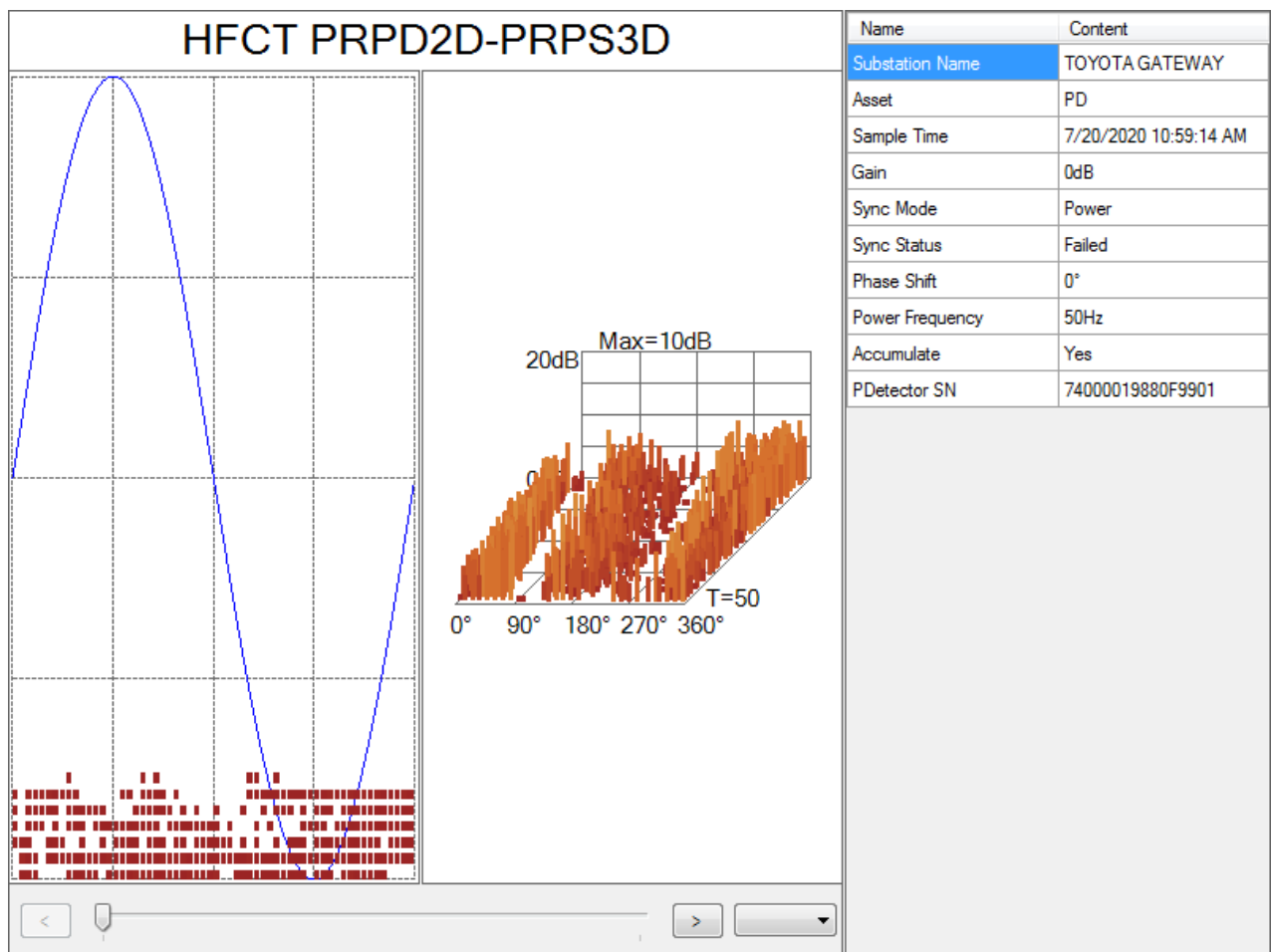


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	PT PHASE B
VOLTAGE LEVEL	115 KV

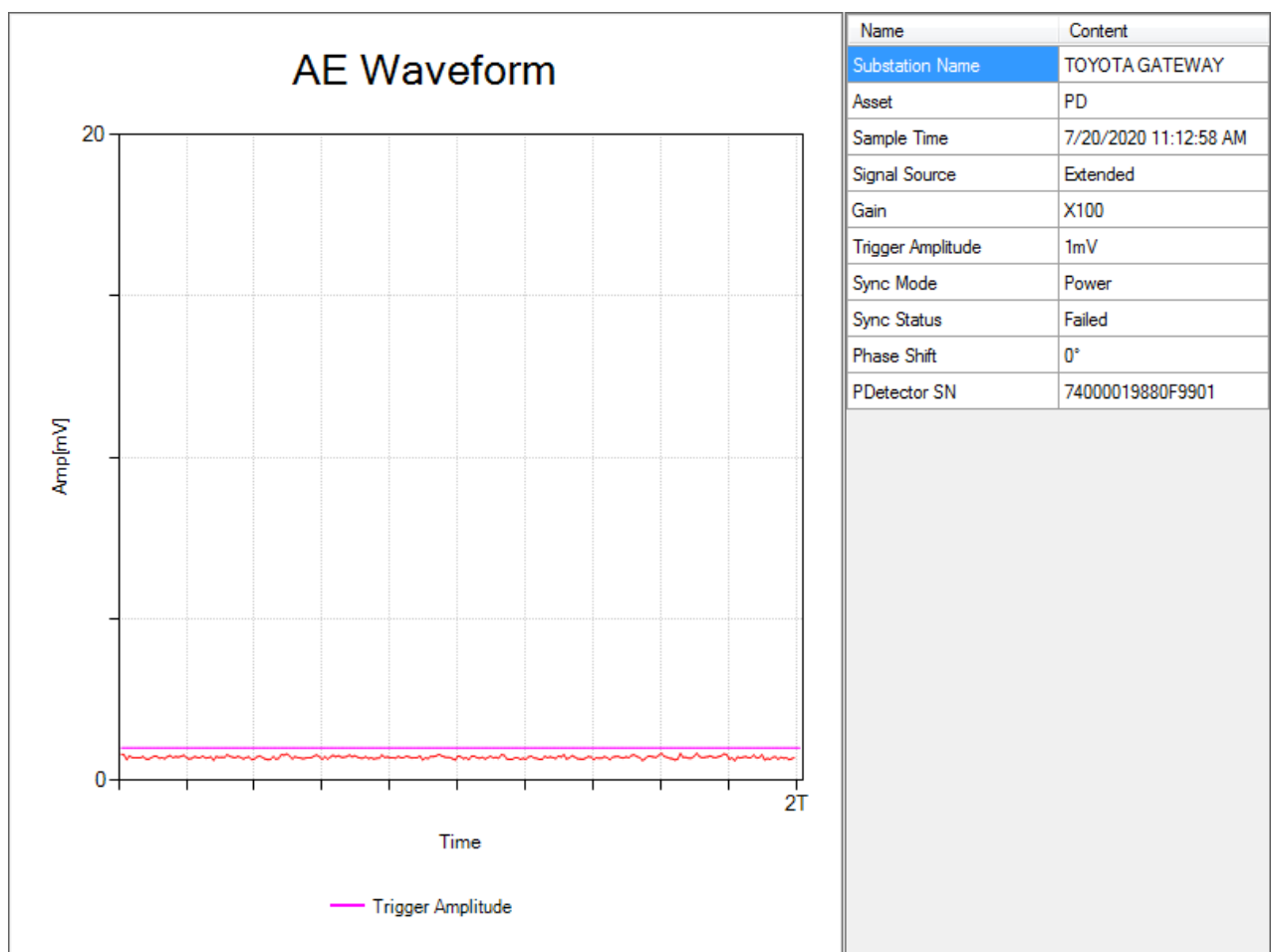


COMMENT	Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	The partial discharge should be inspected in the next year.
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Ultrasonic Dish MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	CT PHASE R
VOLTAGE LEVEL	115 KV

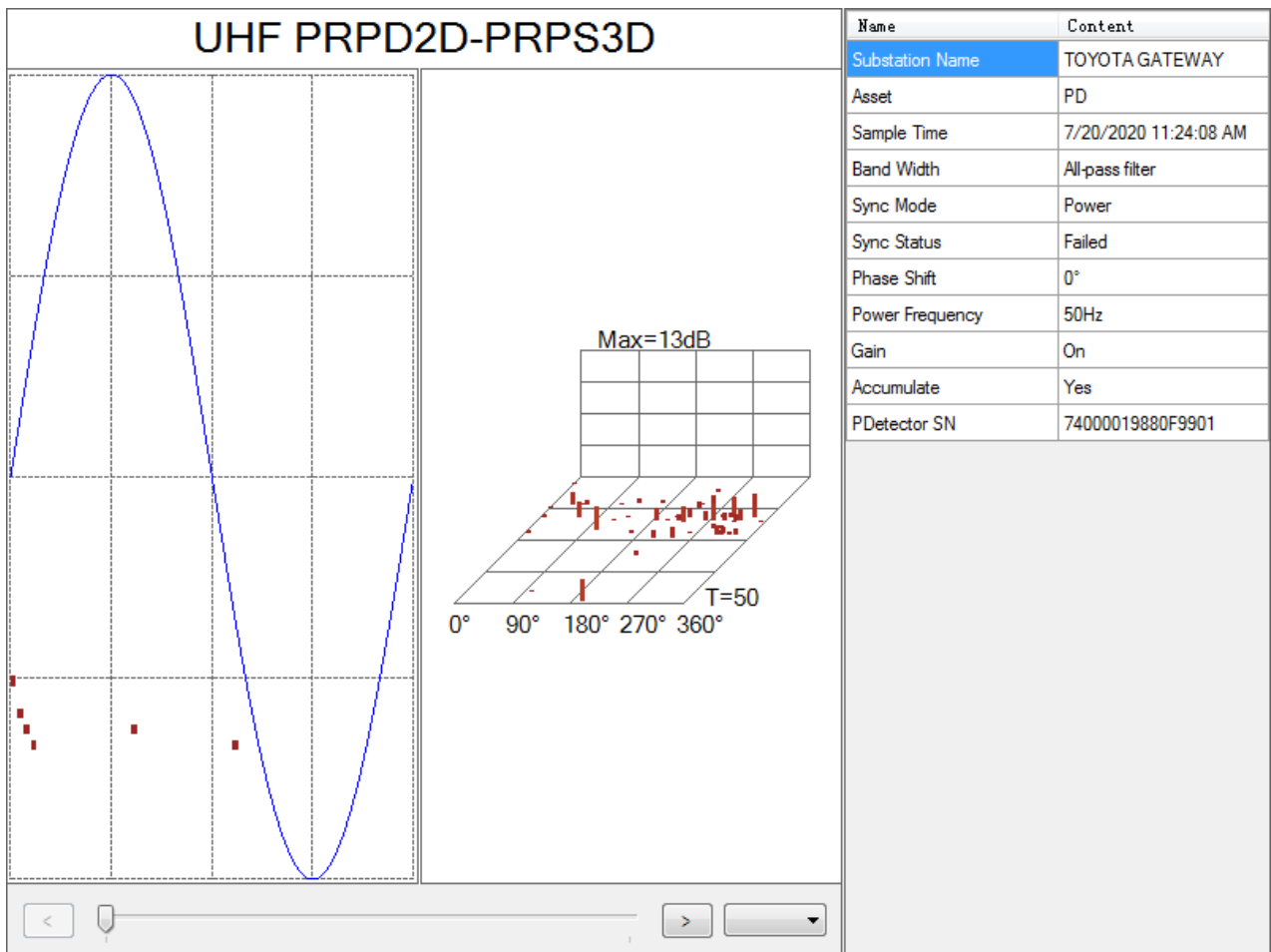


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	CT PHASE R
VOLTAGE LEVEL	115 KV

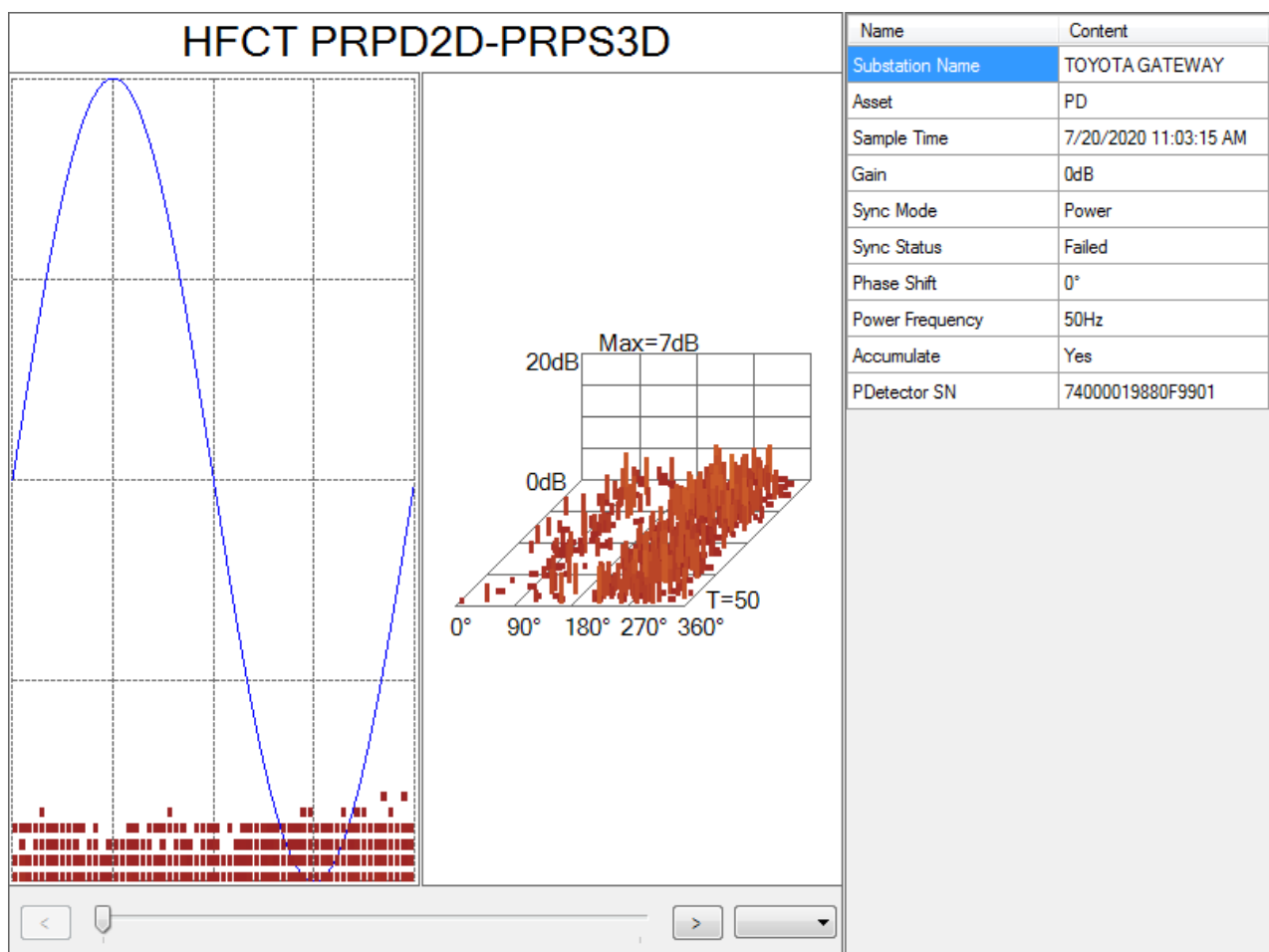


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	PT PHASE R
VOLTAGE LEVEL	115 KV

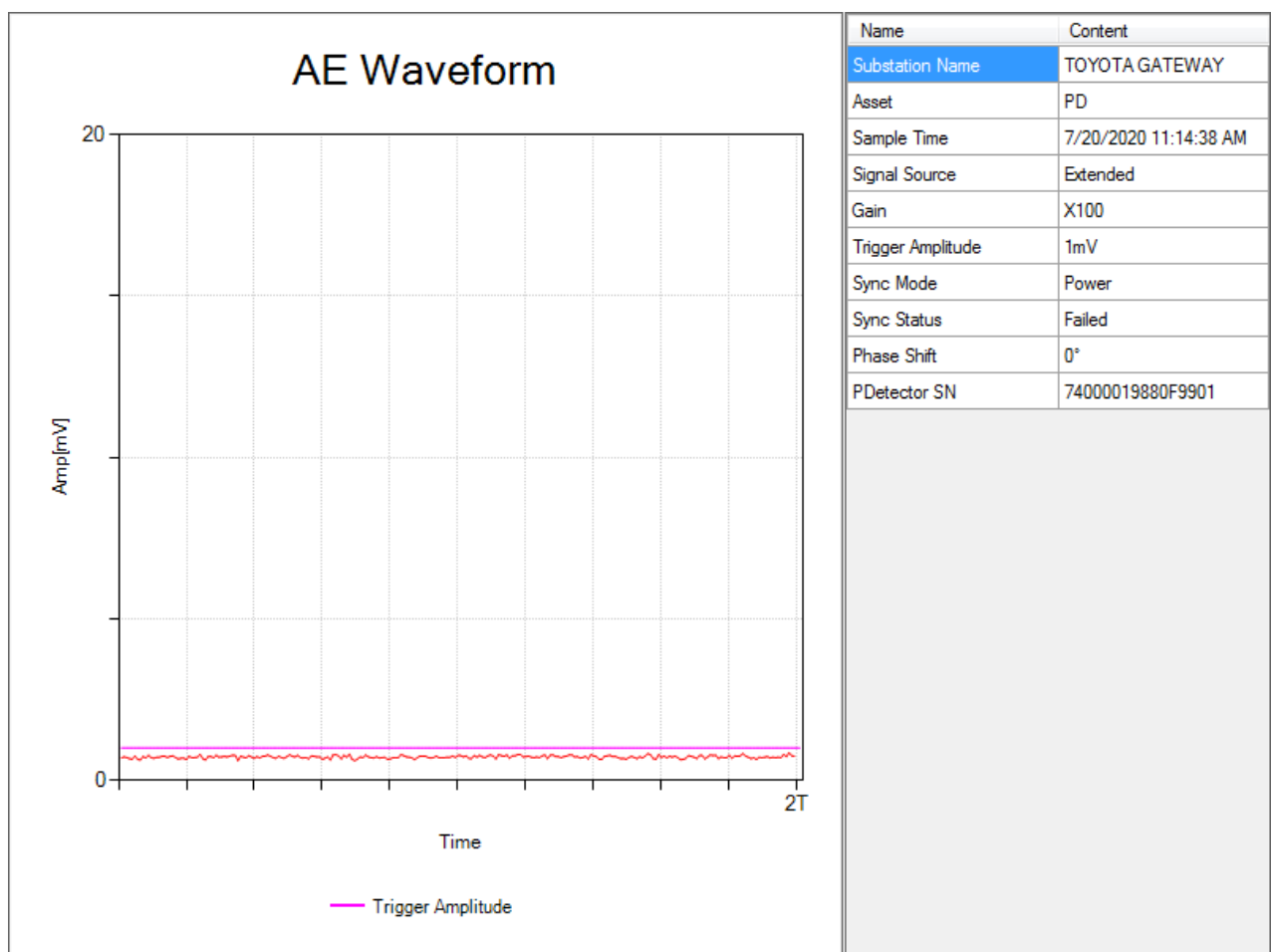


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Ultrasonic Dish MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	CT PHASE Y
VOLTAGE LEVEL	115 KV

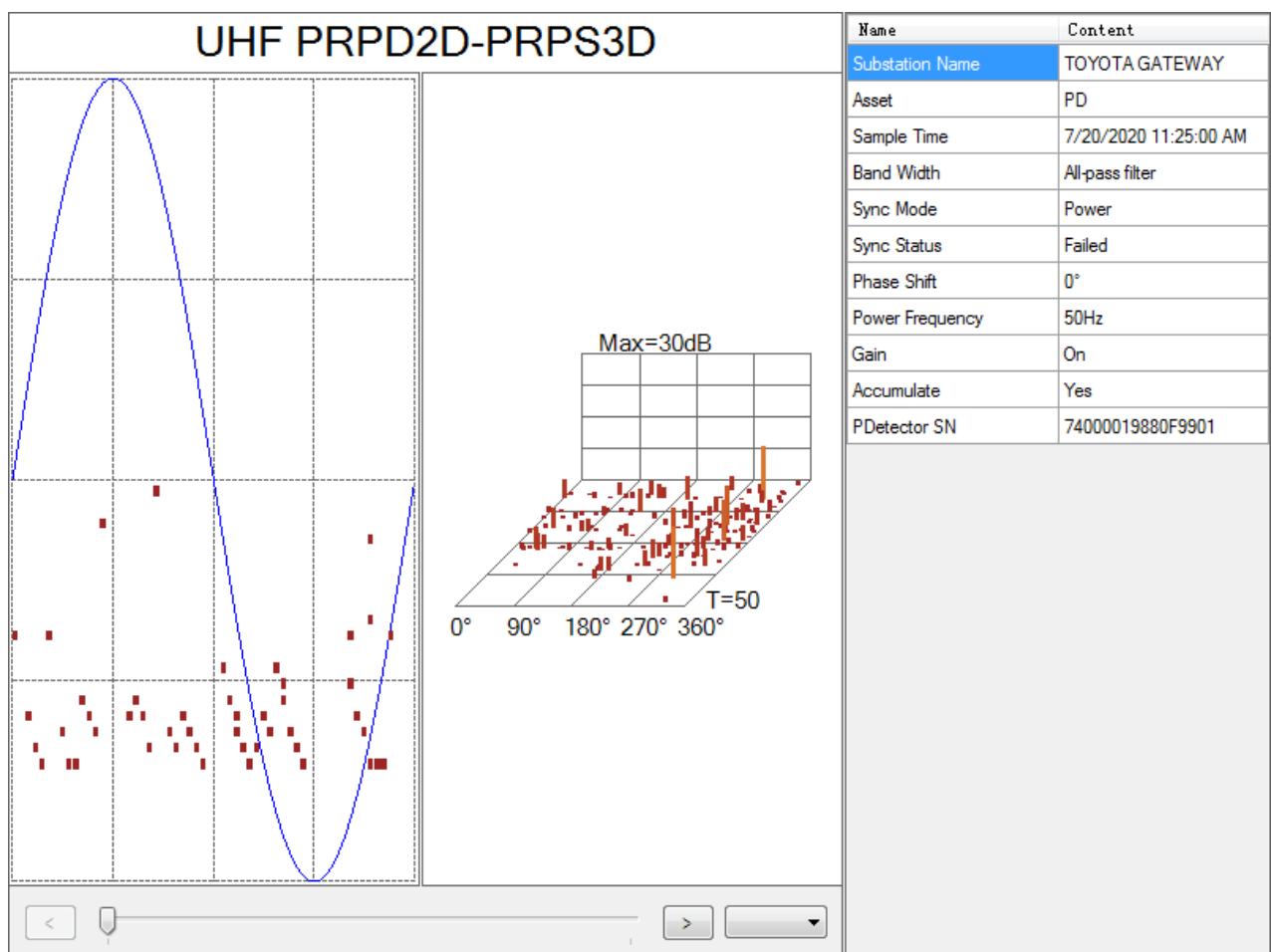


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	CT PHASE Y
VOLTAGE LEVEL	115 KV

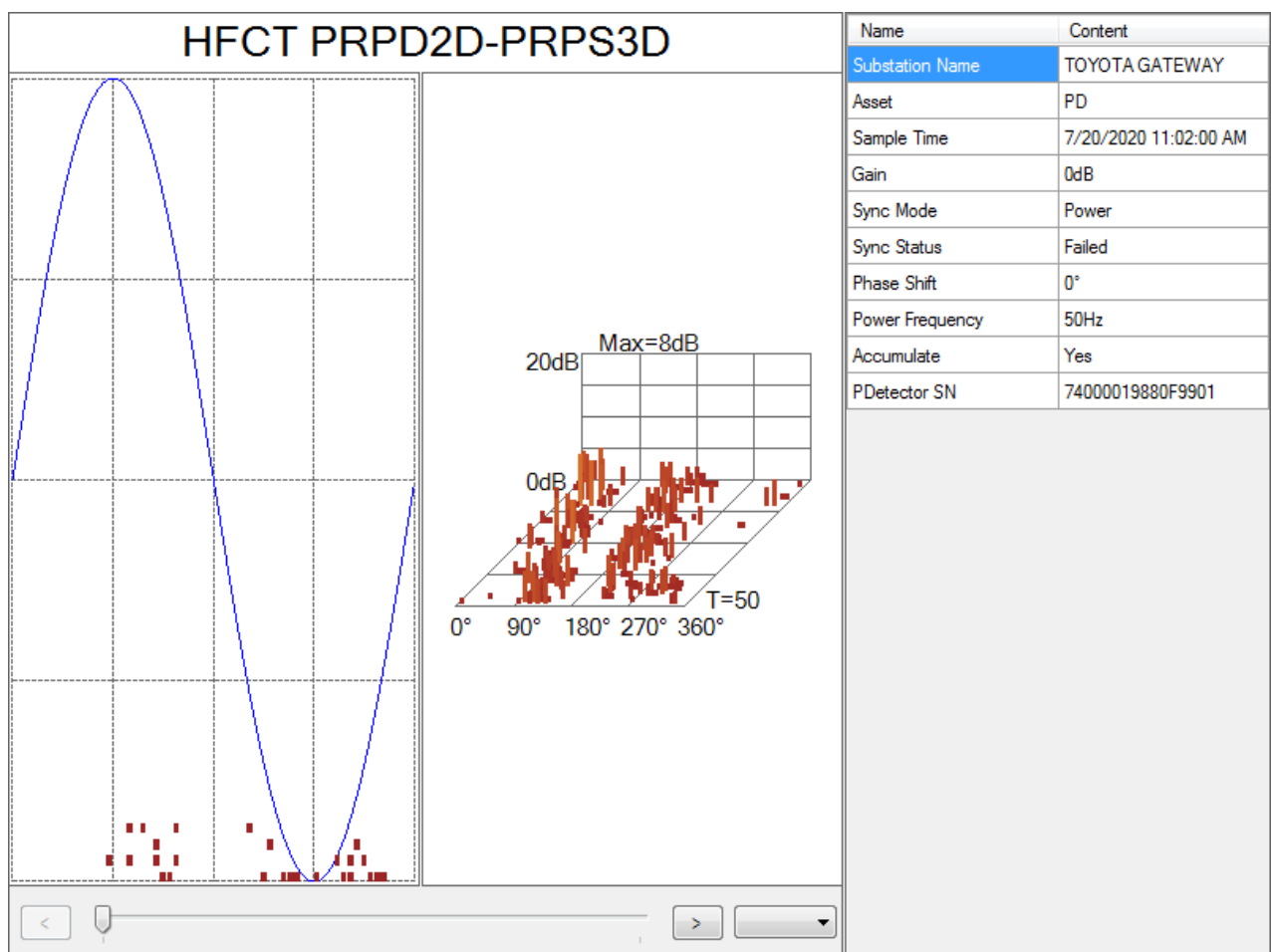


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	CT PHASE Y
VOLTAGE LEVEL	115 KV

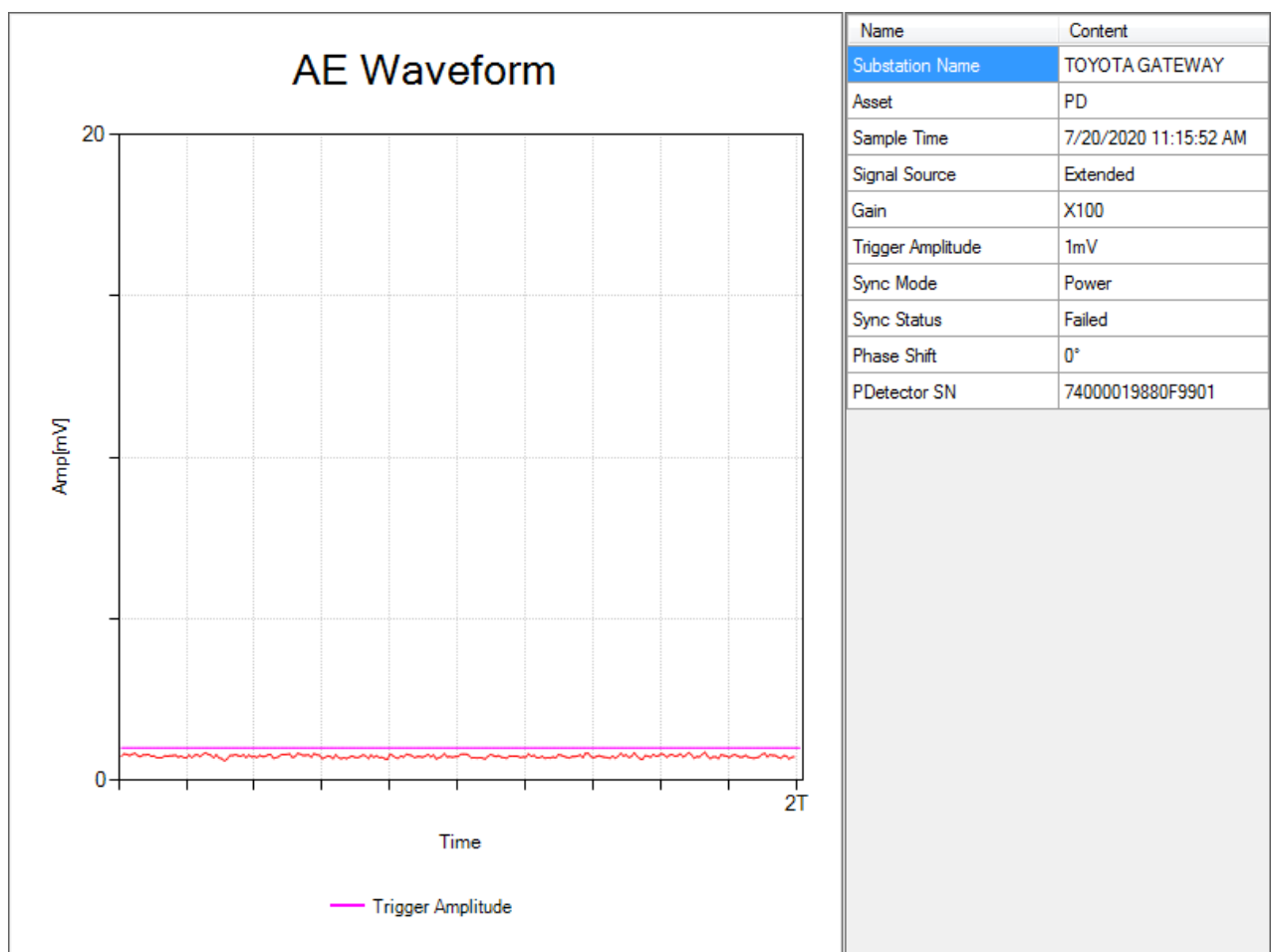


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Ultrasonic Dish MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	CT PHASE B
VOLTAGE LEVEL	115 KV

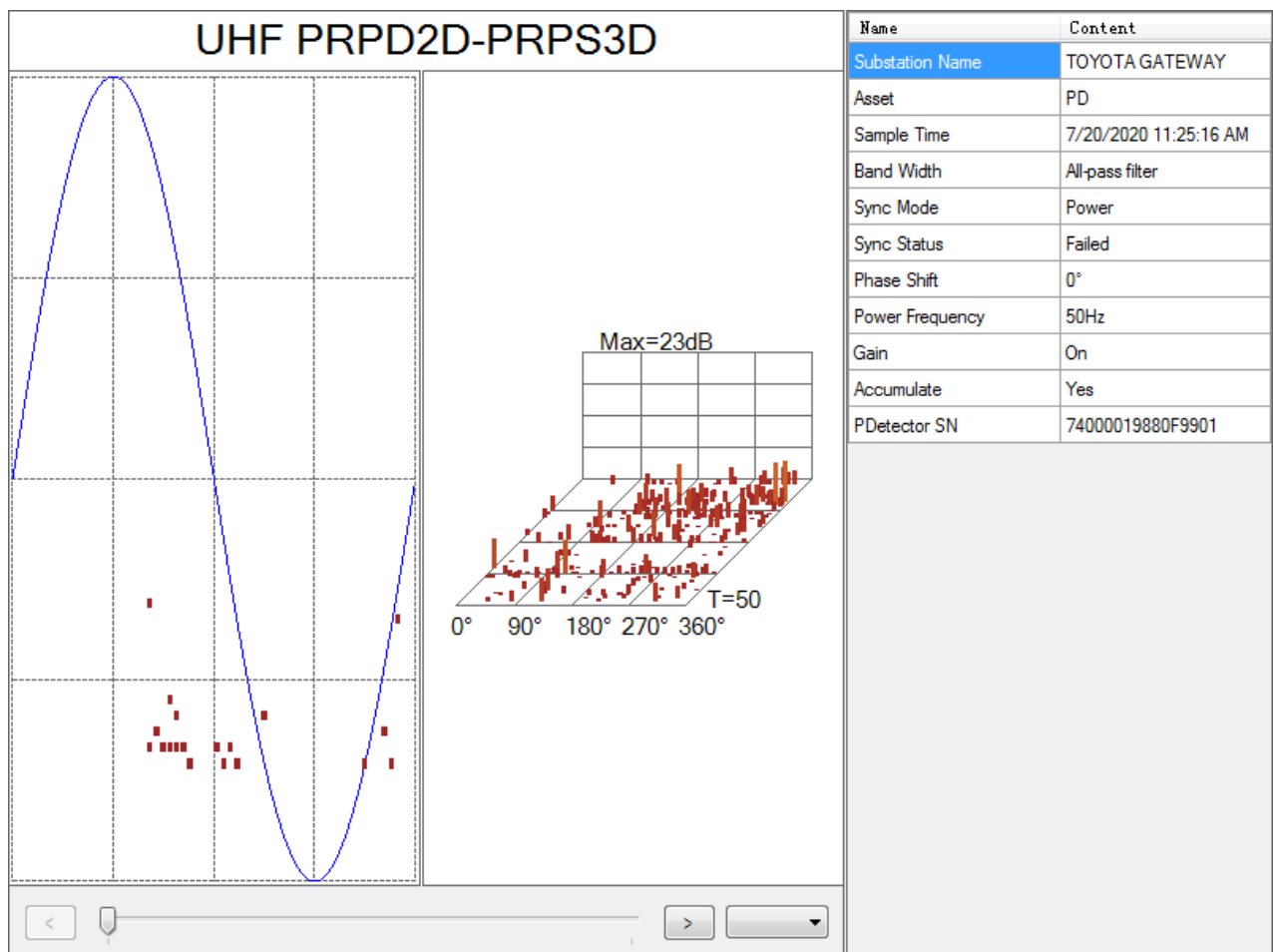


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	CT PHASE B
VOLTAGE LEVEL	115 KV

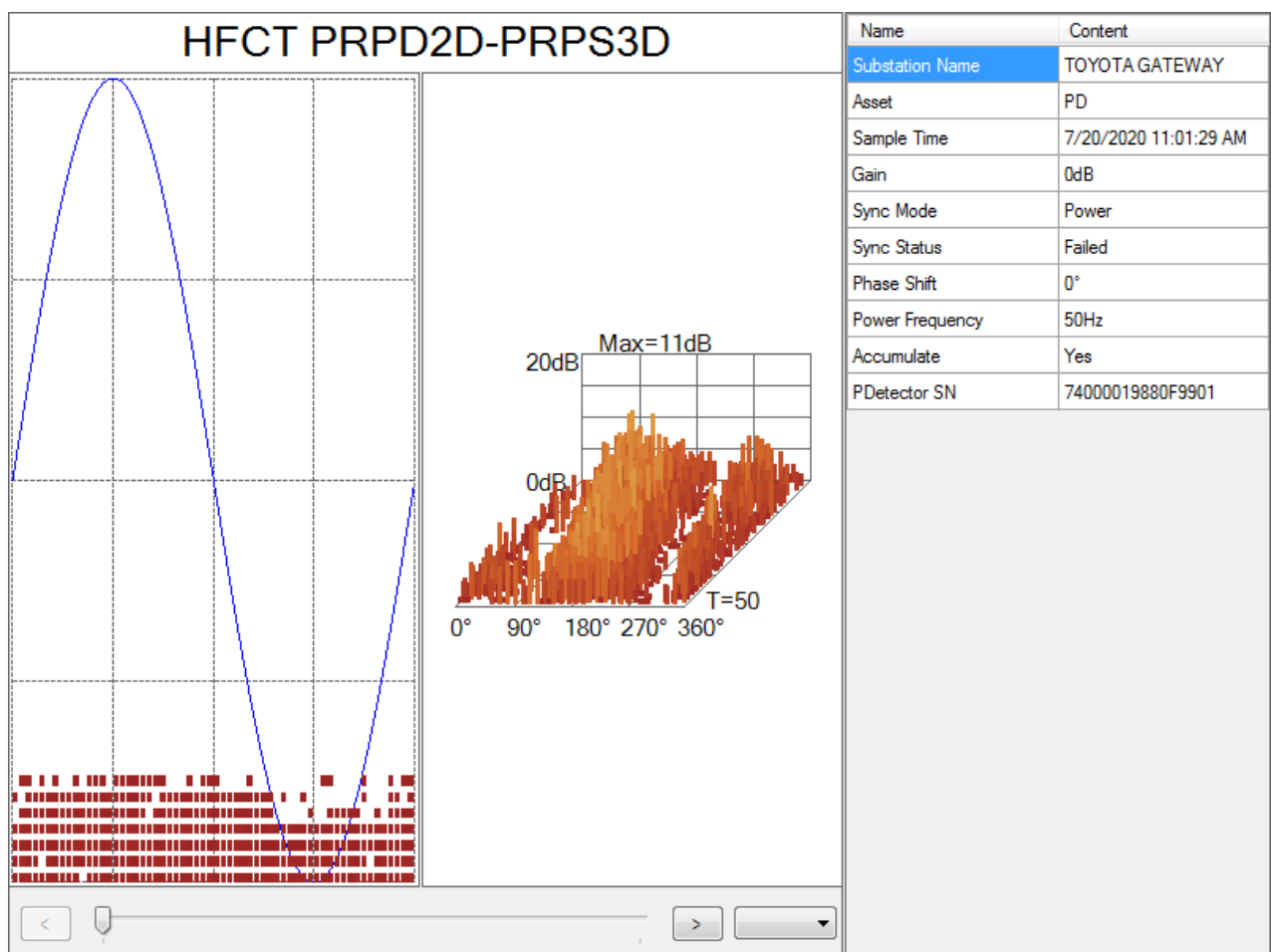


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	CT PHASE B
VOLTAGE LEVEL	115 KV

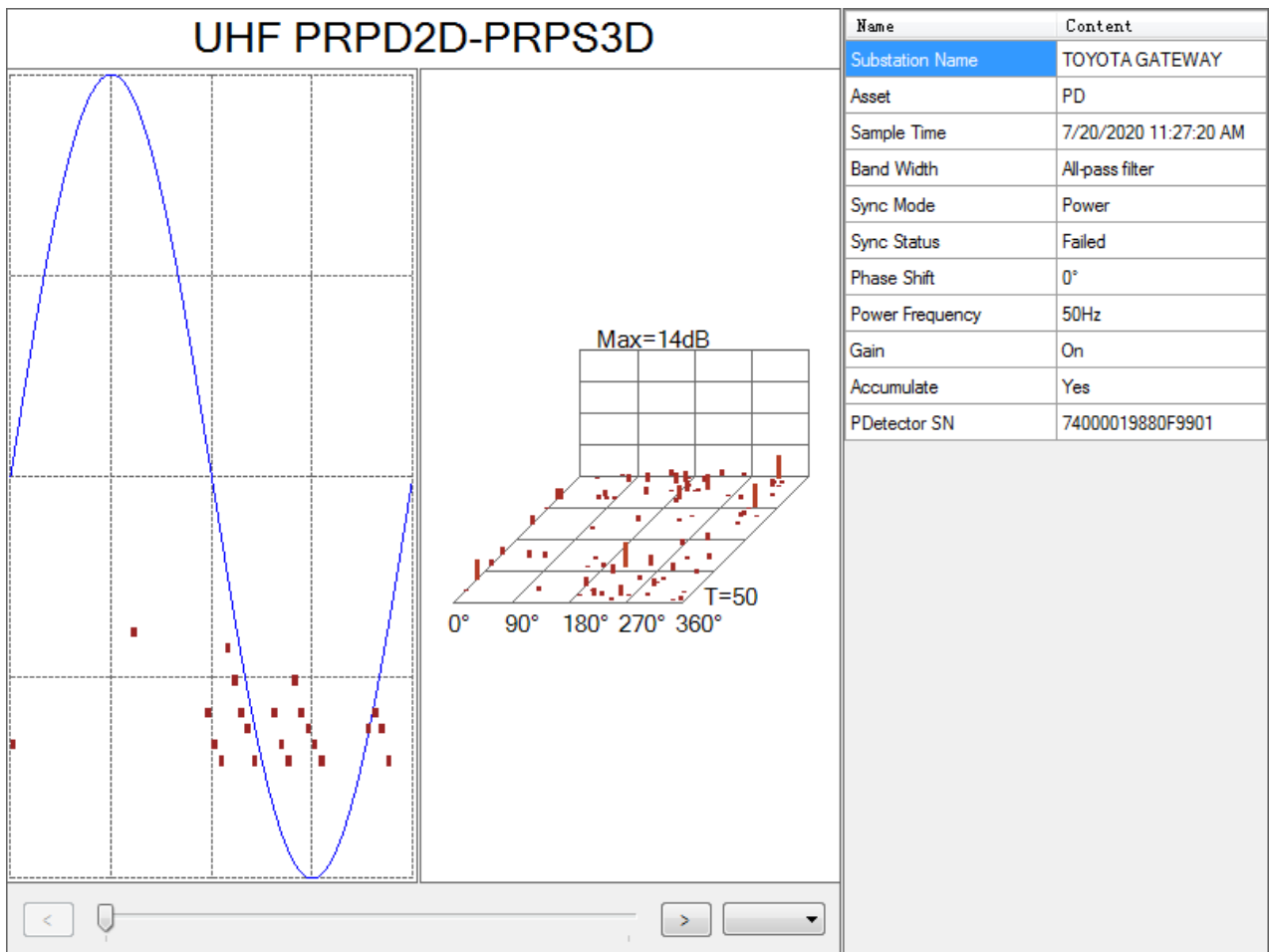


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	PT (GAS)
VOLTAGE LEVEL	115 KV

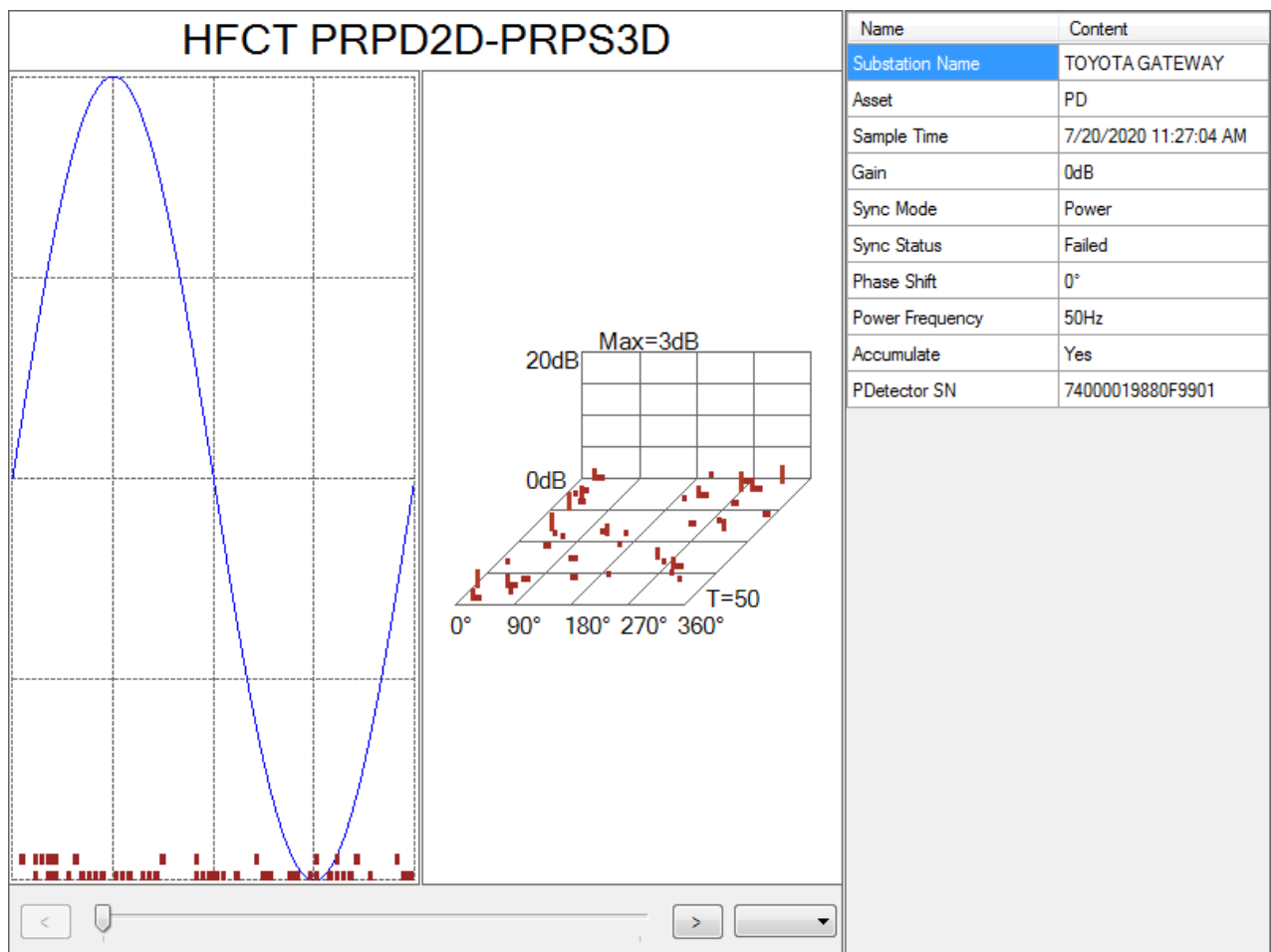


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	PT (GAS)
VOLTAGE LEVEL	115 KV

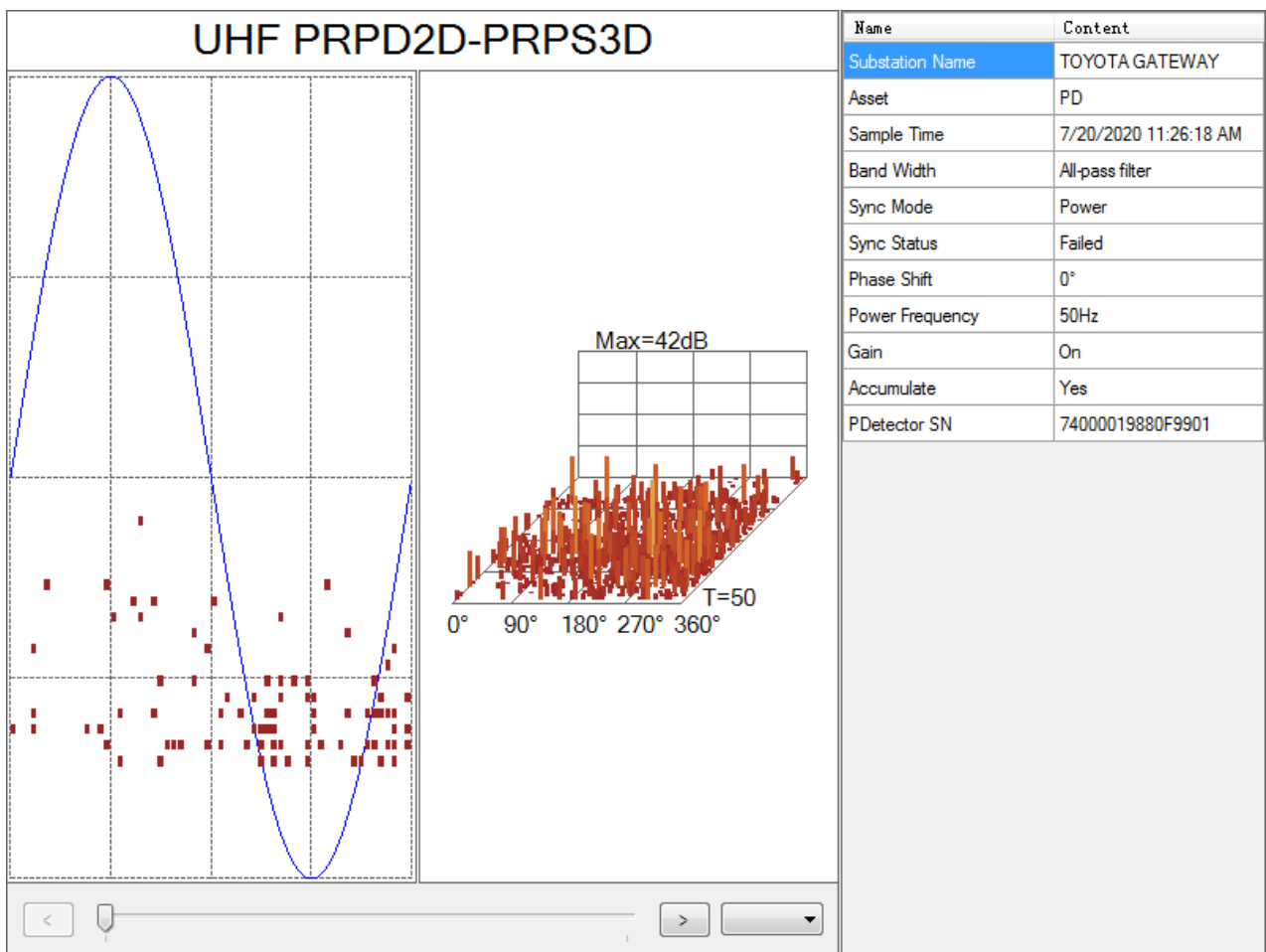


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	CB 115 KV
VOLTAGE LEVEL	115 KV

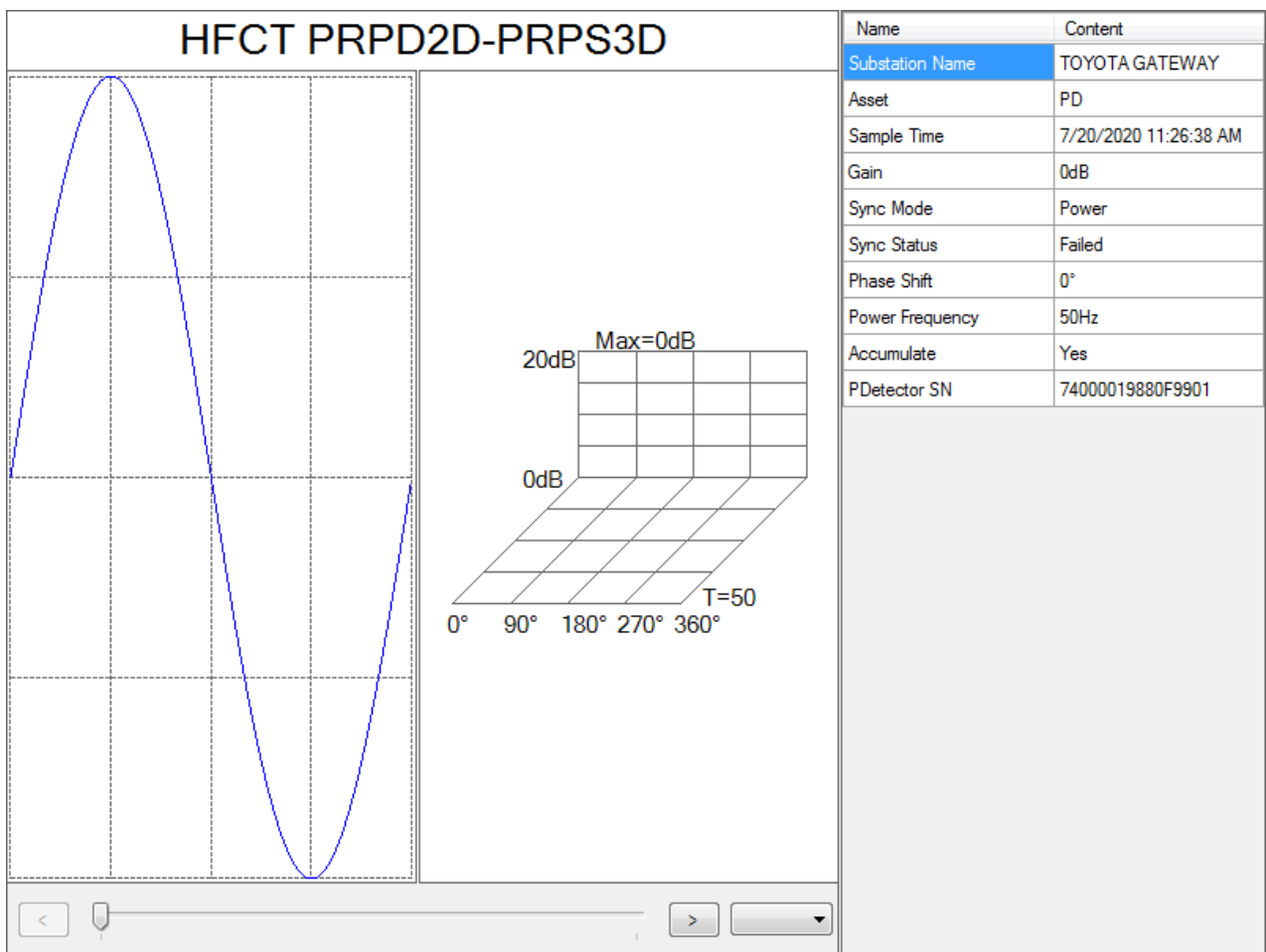


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	CB 115 KV
VOLTAGE LEVEL	115 KV

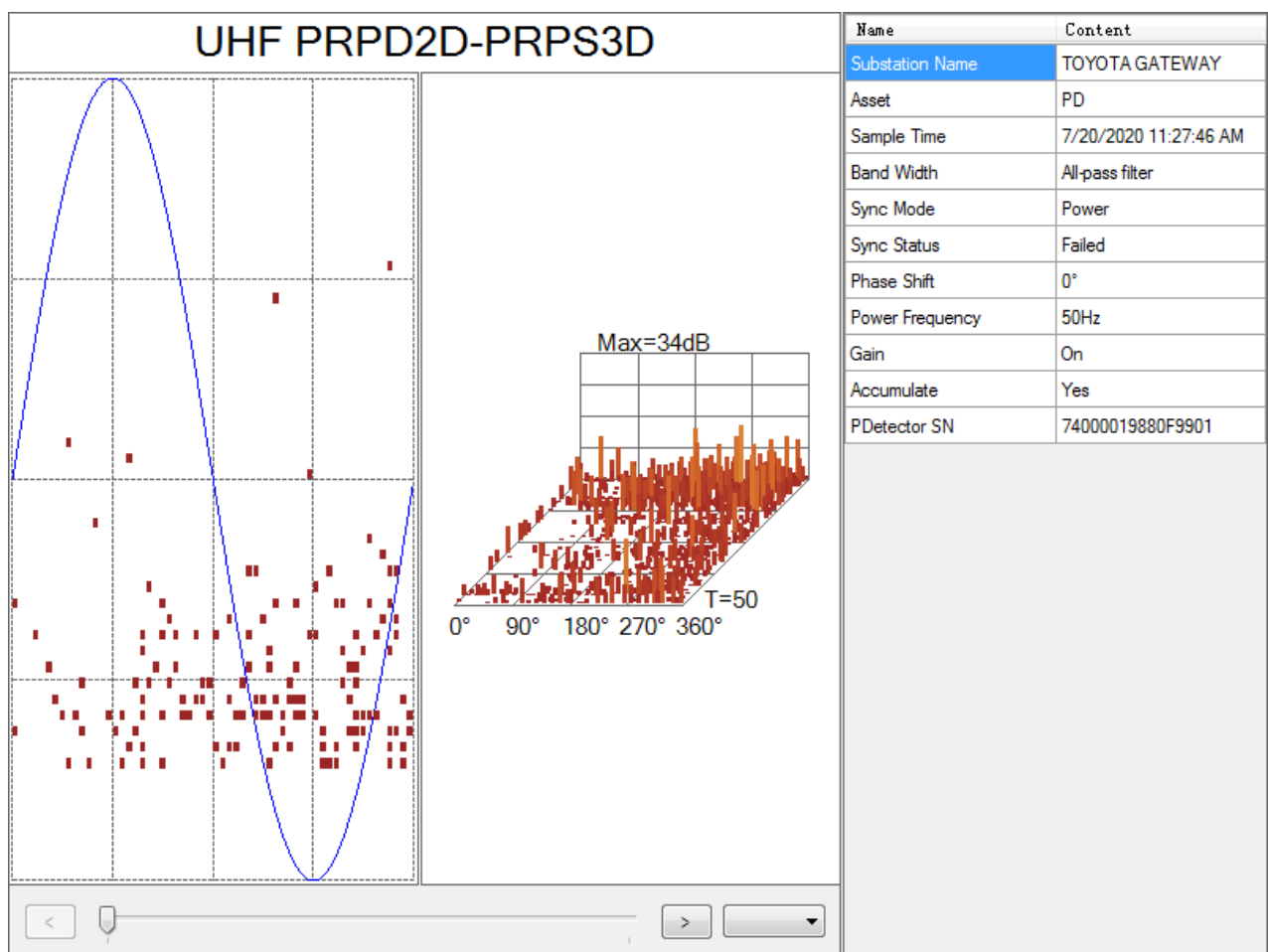


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	RECEIVING TO TR.1
VOLTAGE LEVEL	115 KV

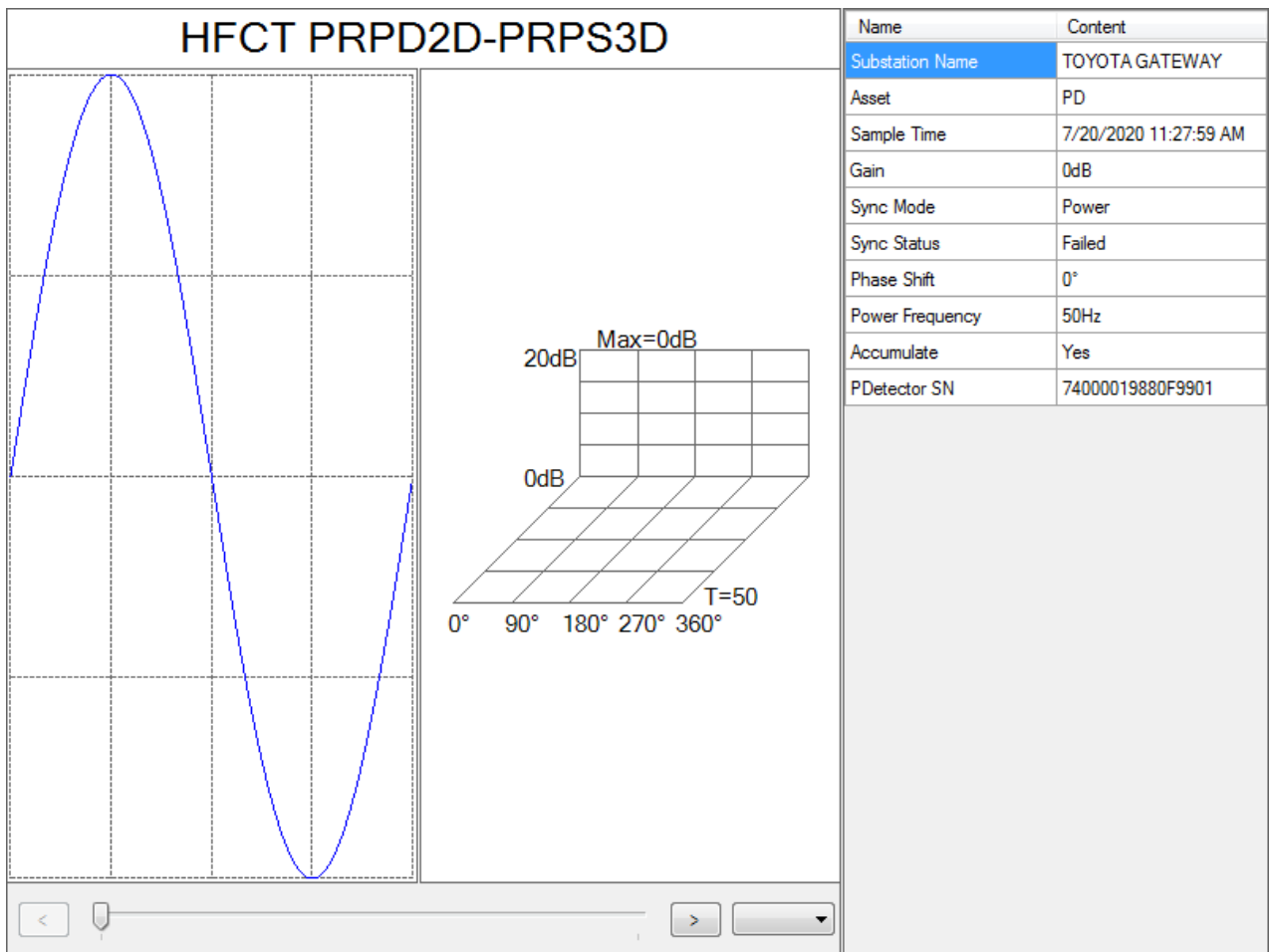


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	RECEIVING TO TR.1
VOLTAGE LEVEL	115 KV

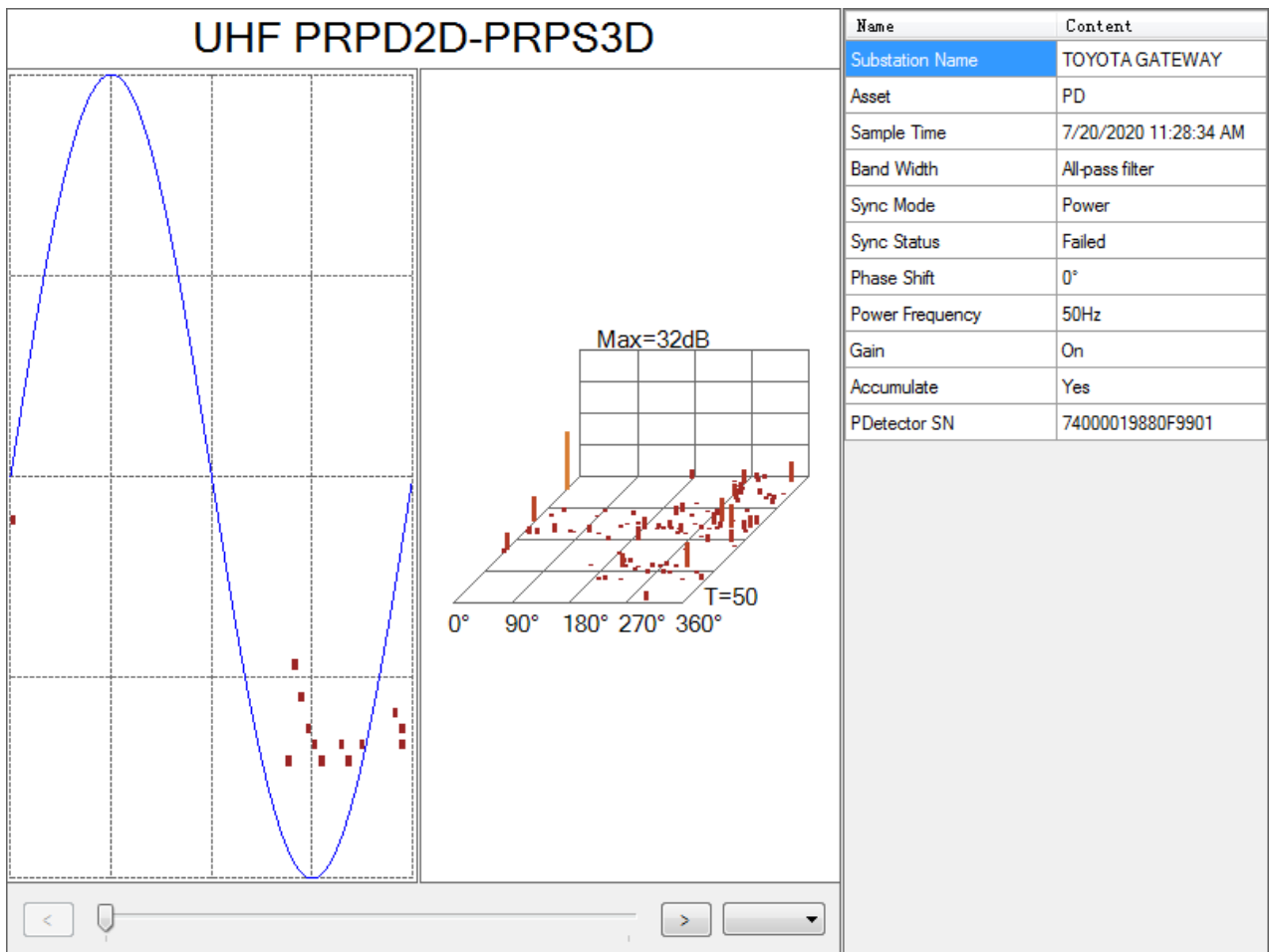


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	CB TR1
VOLTAGE LEVEL	115 KV

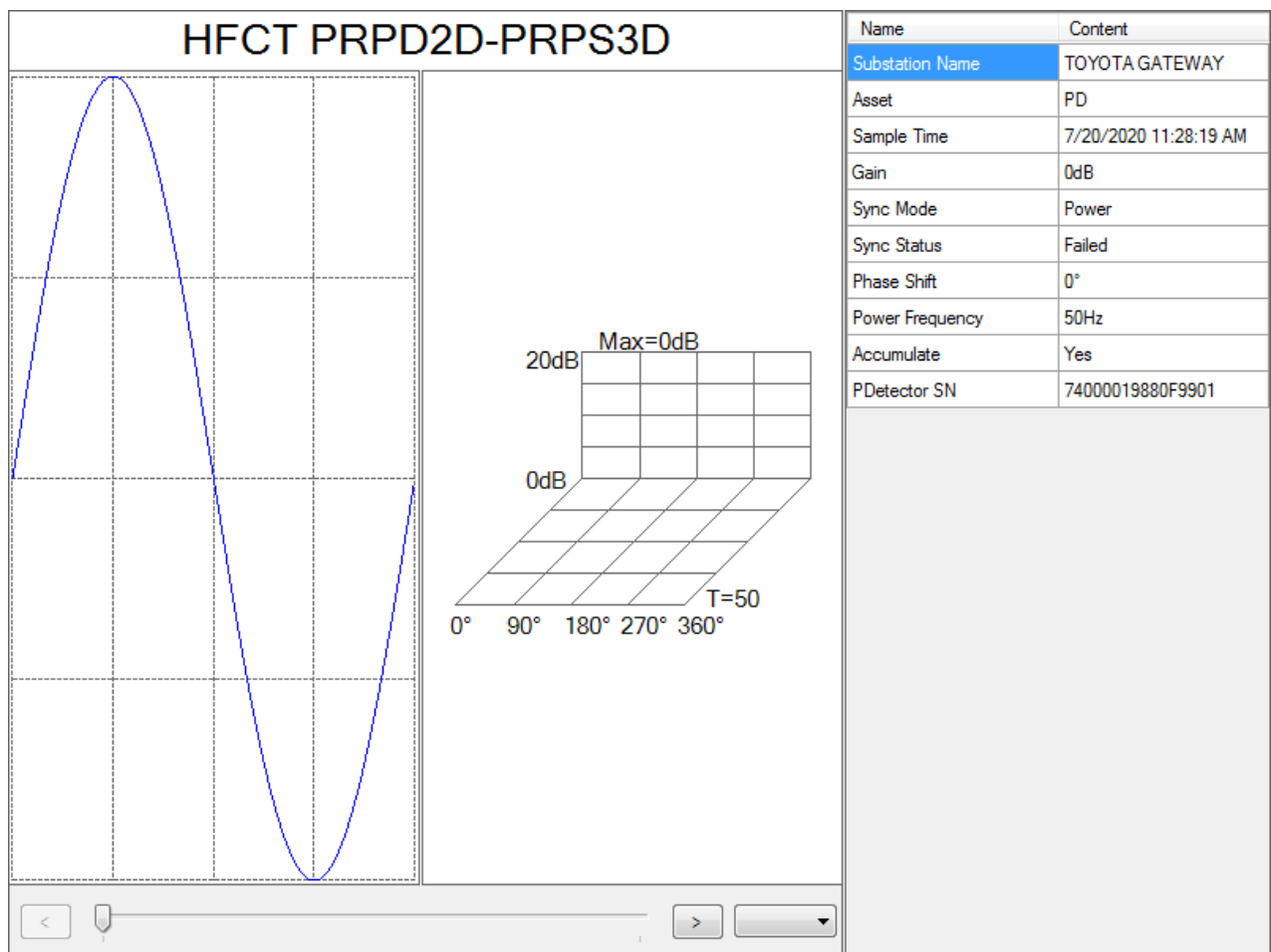


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	CB TR1
VOLTAGE LEVEL	115 KV

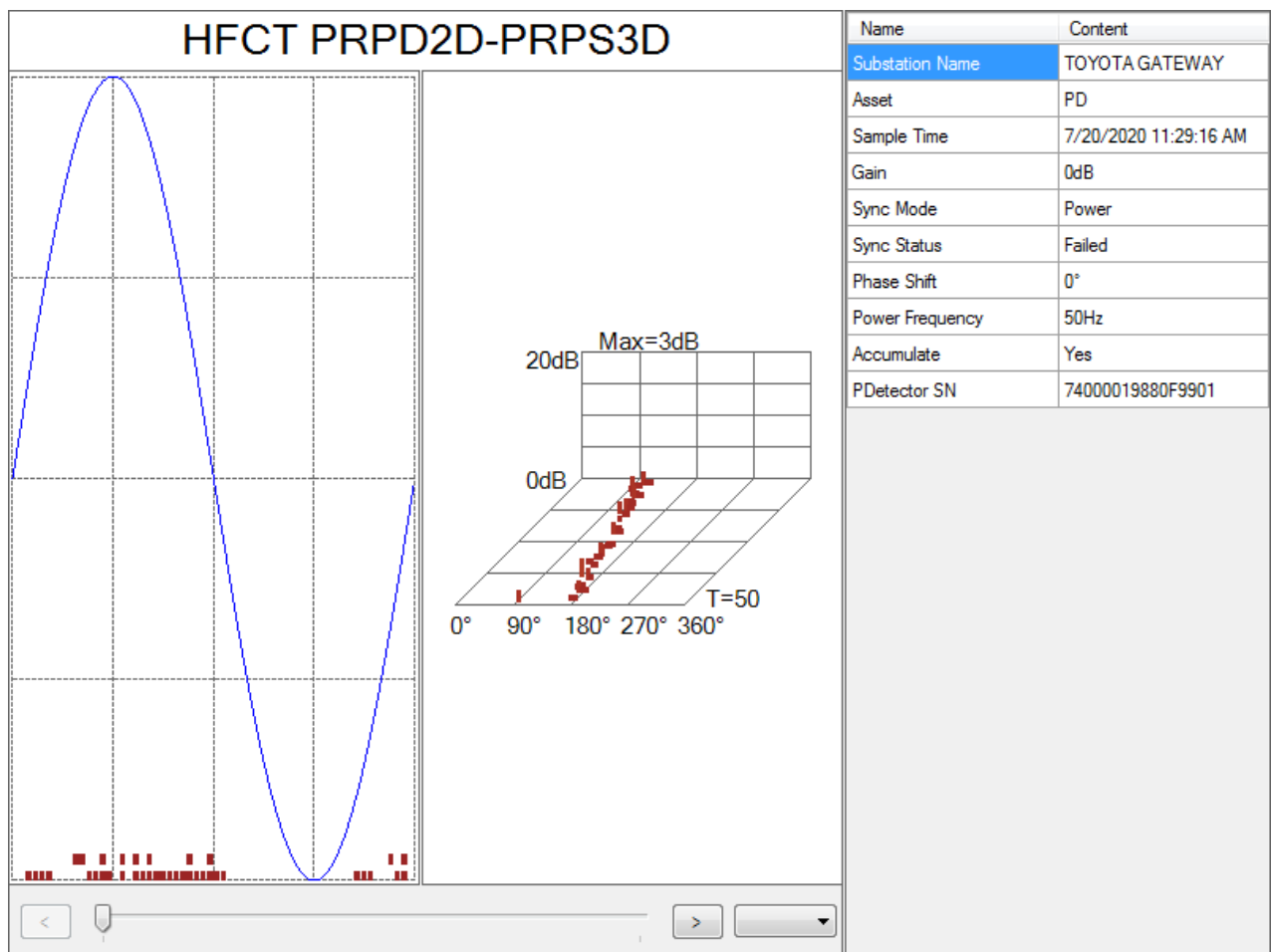


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	TR1
VOLTAGE LEVEL	115 KV

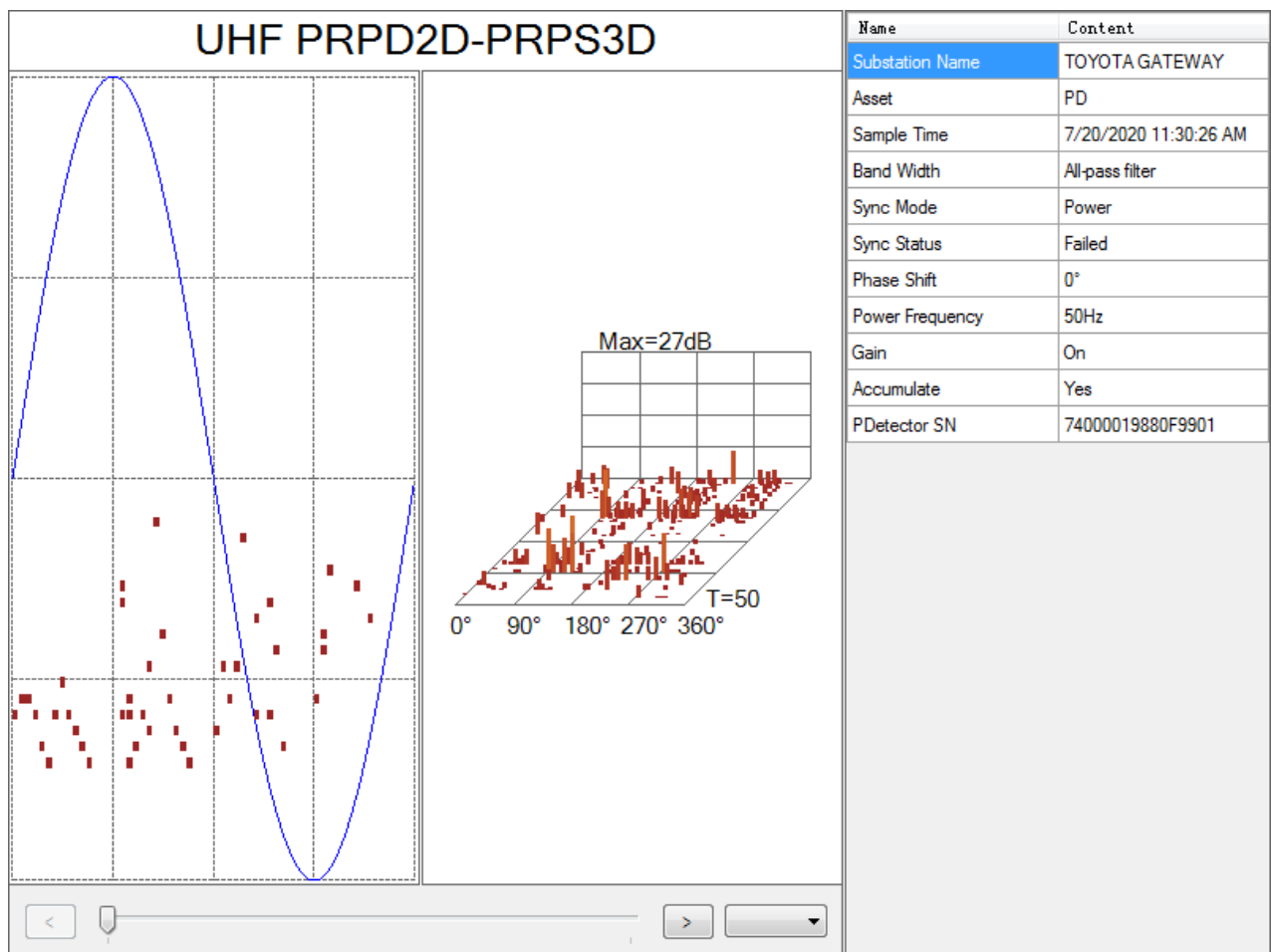


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	RECEIVING TO TR2
VOLTAGE LEVEL	115 KV

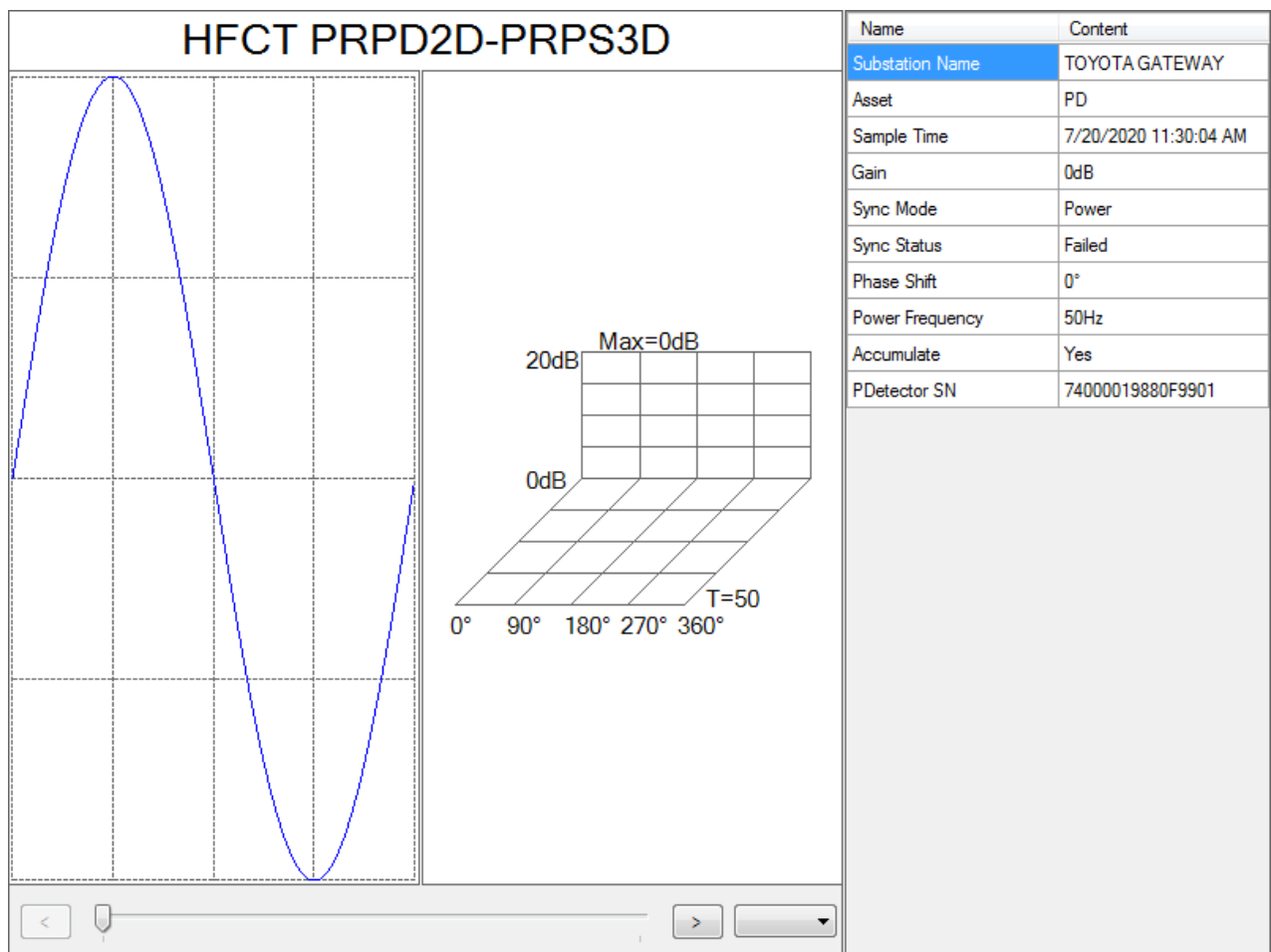


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	RECEIVING TO TR2
VOLTAGE LEVEL	115 KV

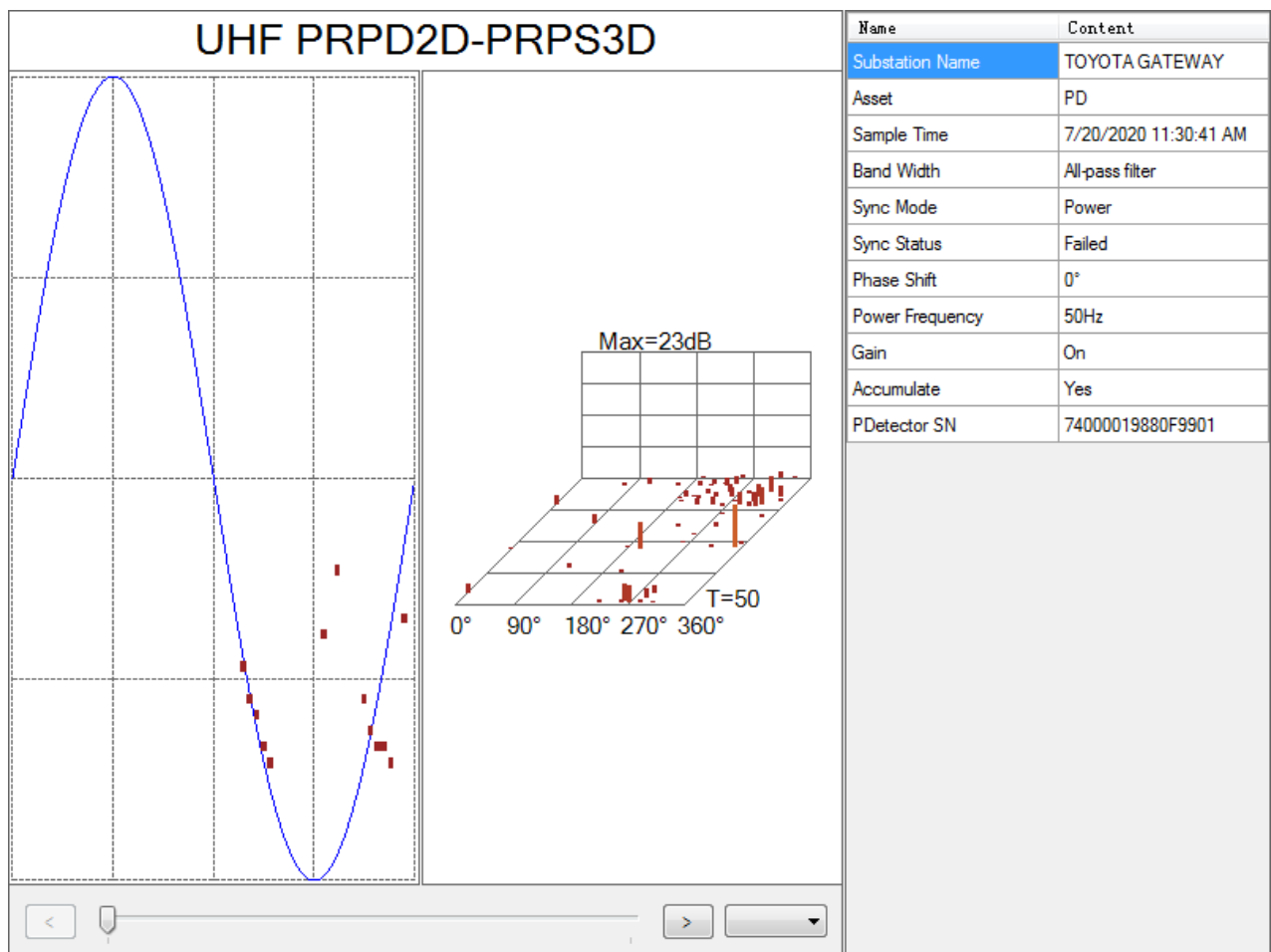


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	CB TR.2
VOLTAGE LEVEL	115 KV

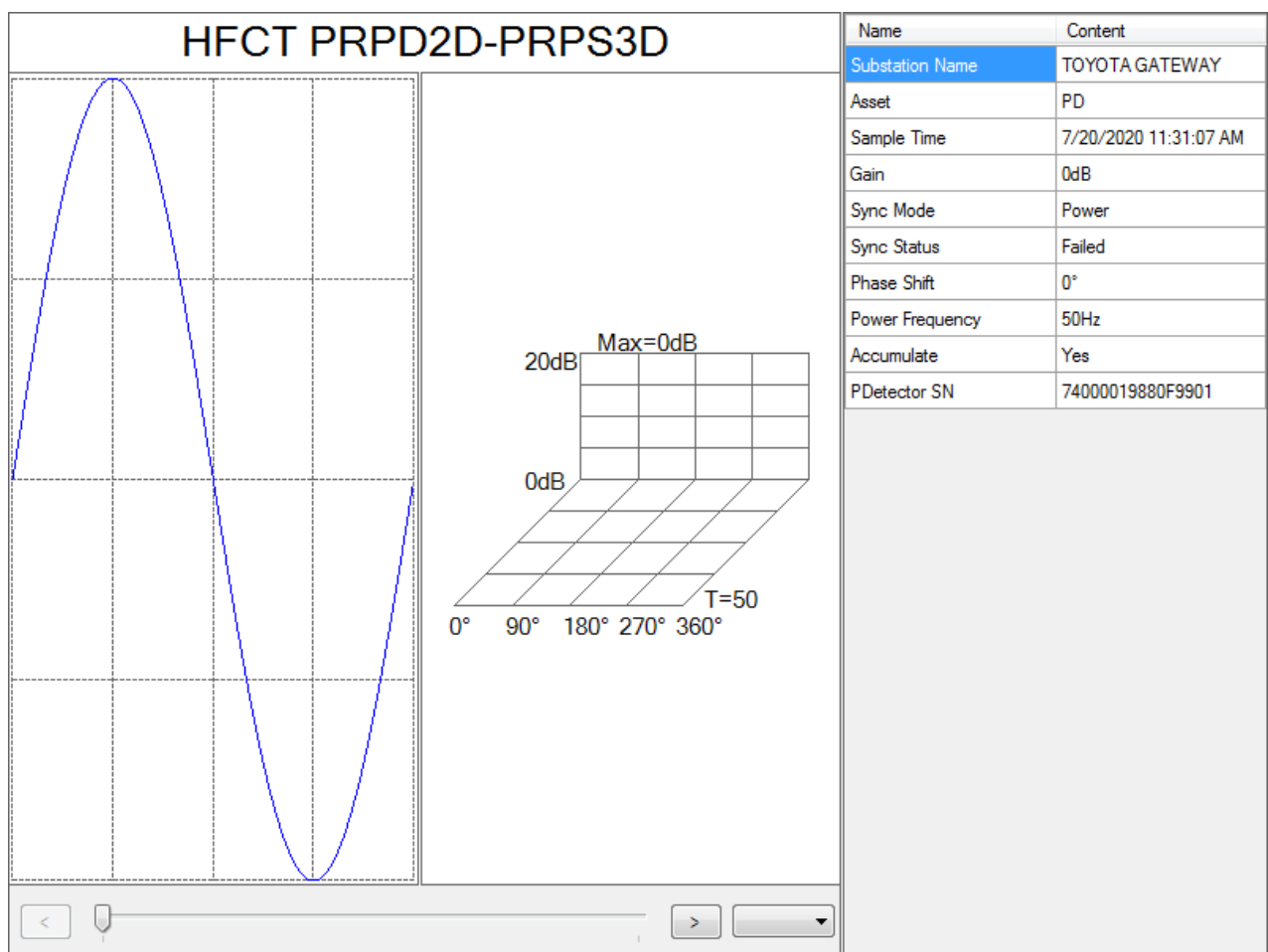


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	RECEIVING TO TR2
VOLTAGE LEVEL	115 KV

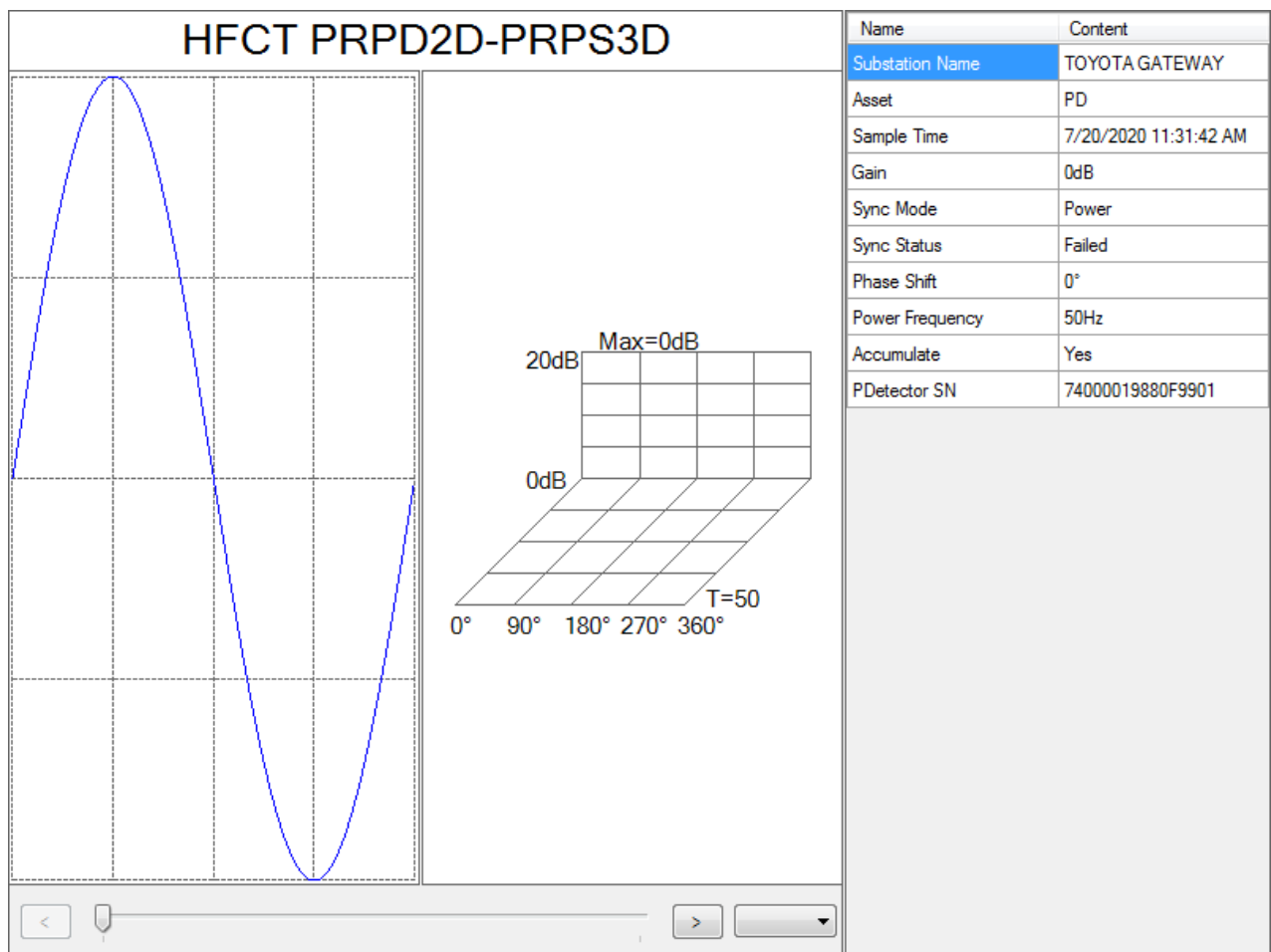


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY HFCT MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	TR2
VOLTAGE LEVEL	115 KV

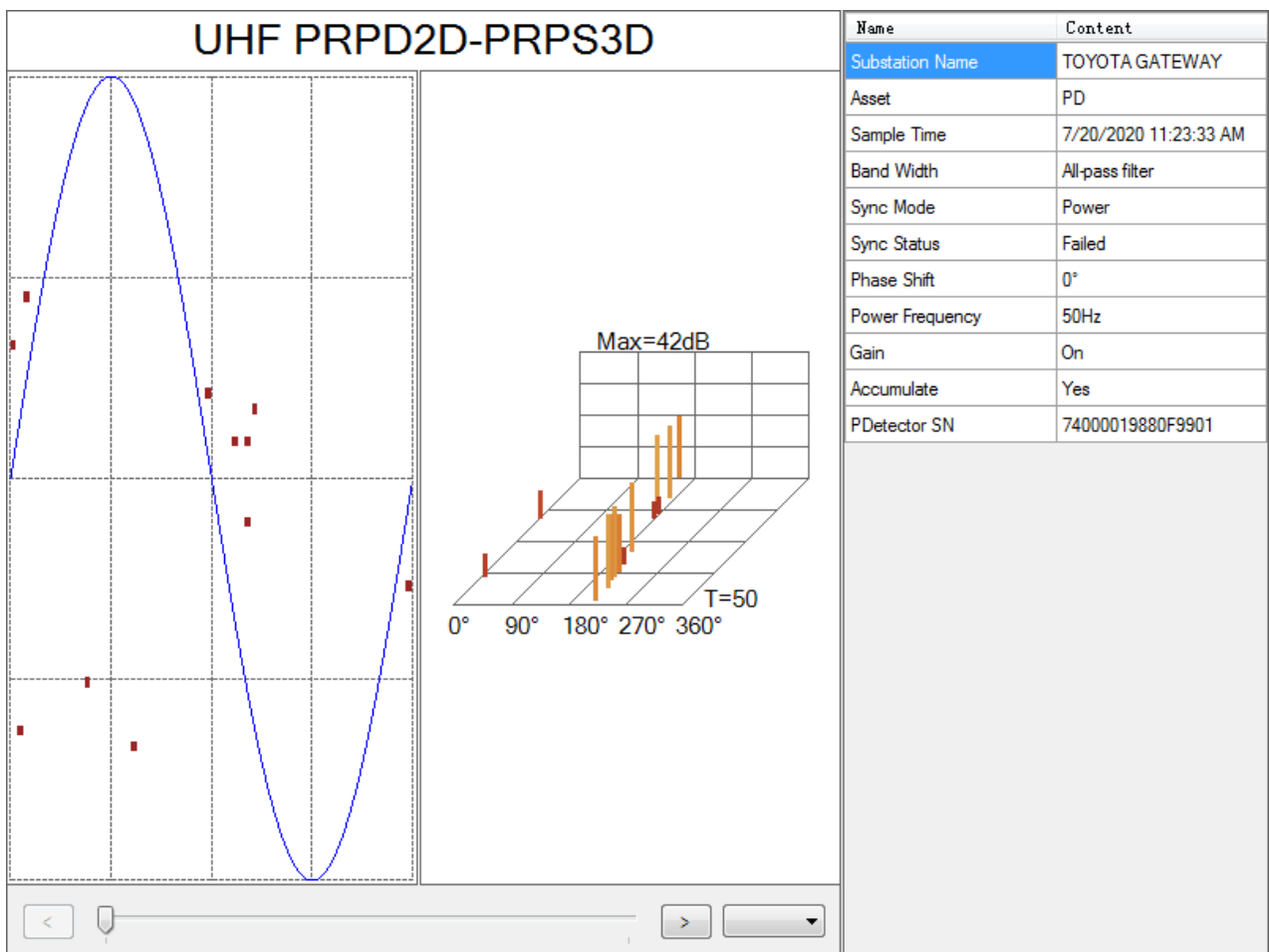


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	DS PHASE R
VOLTAGE LEVEL	115 KV

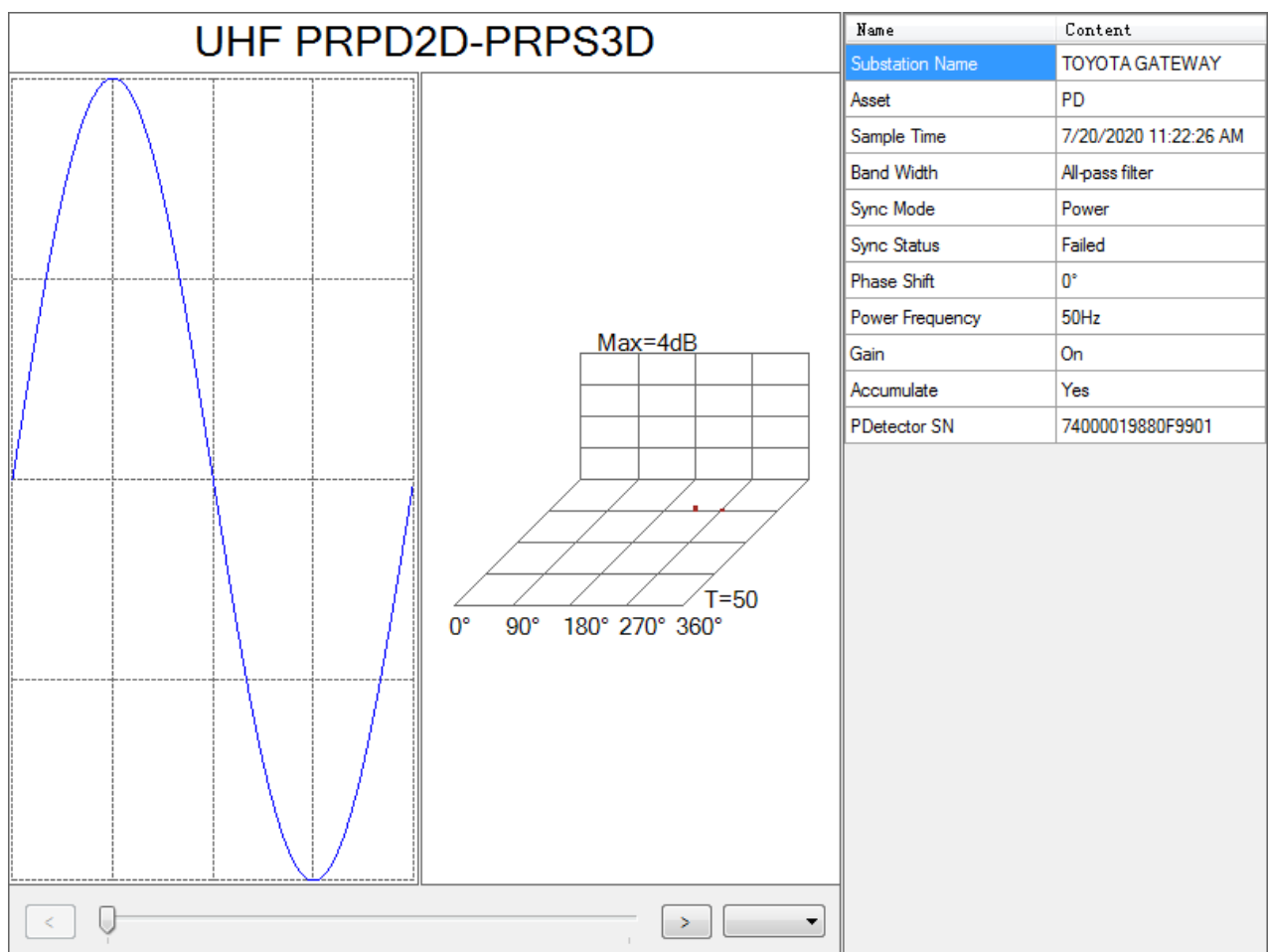


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	DS PHASE Y
VOLTAGE LEVEL	115 KV

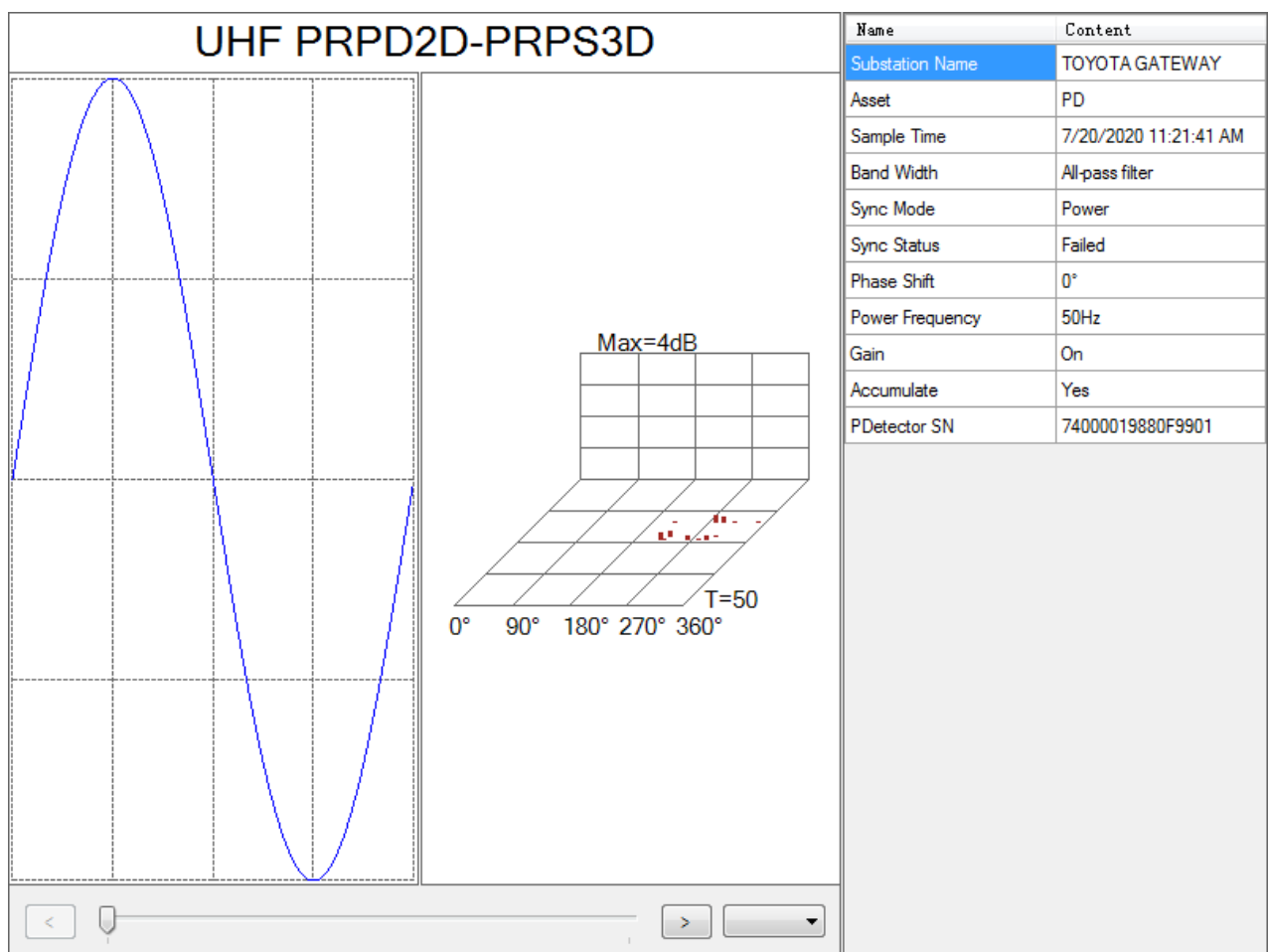


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	SUBSTATION 115 KV
POSITION	DS PHASE B
VOLTAGE LEVEL	115 KV



COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

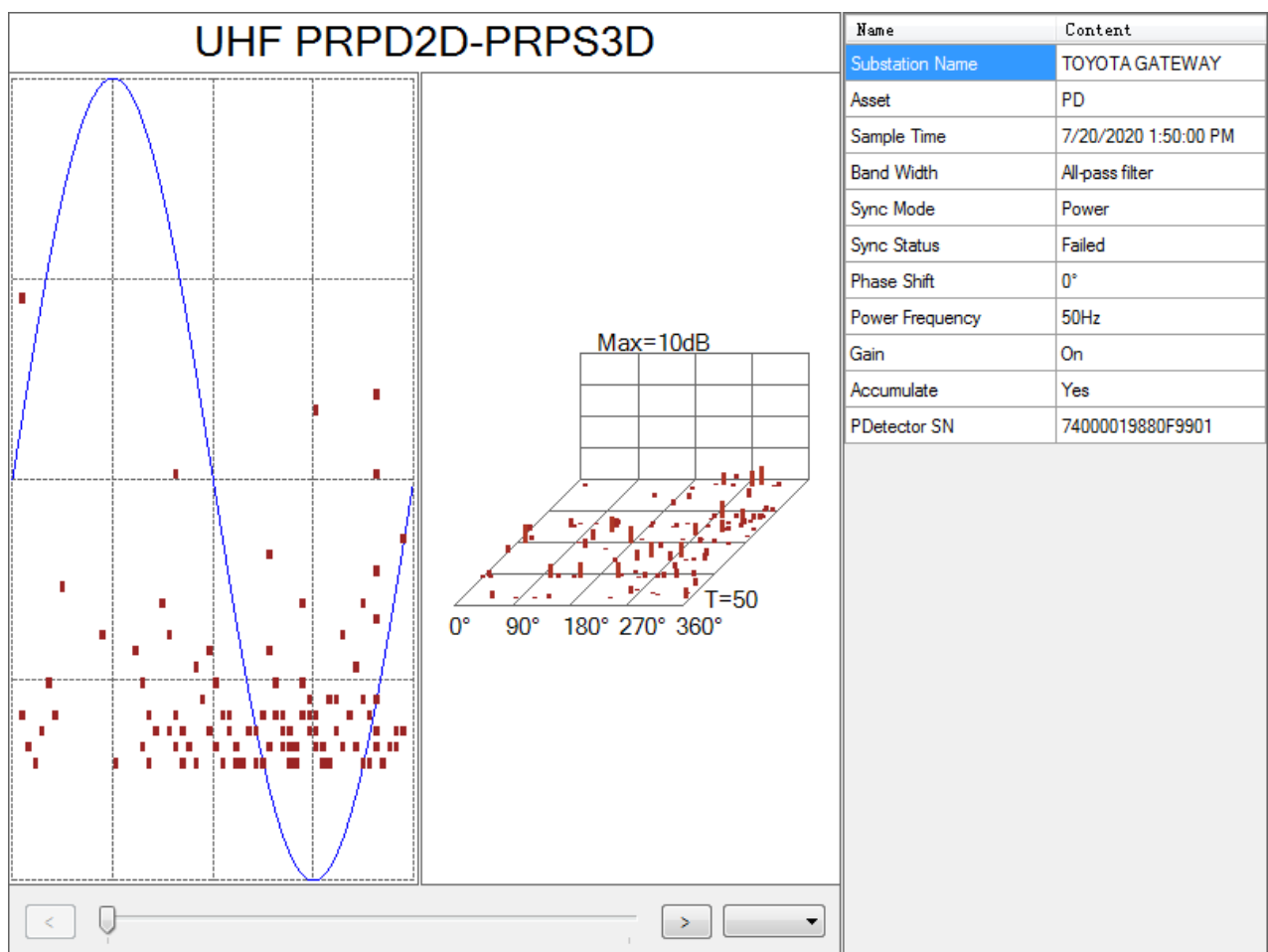
SUBSTATION :GIS

POSITION : INDOOR PANE 1 (115 KV)

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	NO.2 BANK BUS-TIE
VOLTAGE LEVEL	22 KV

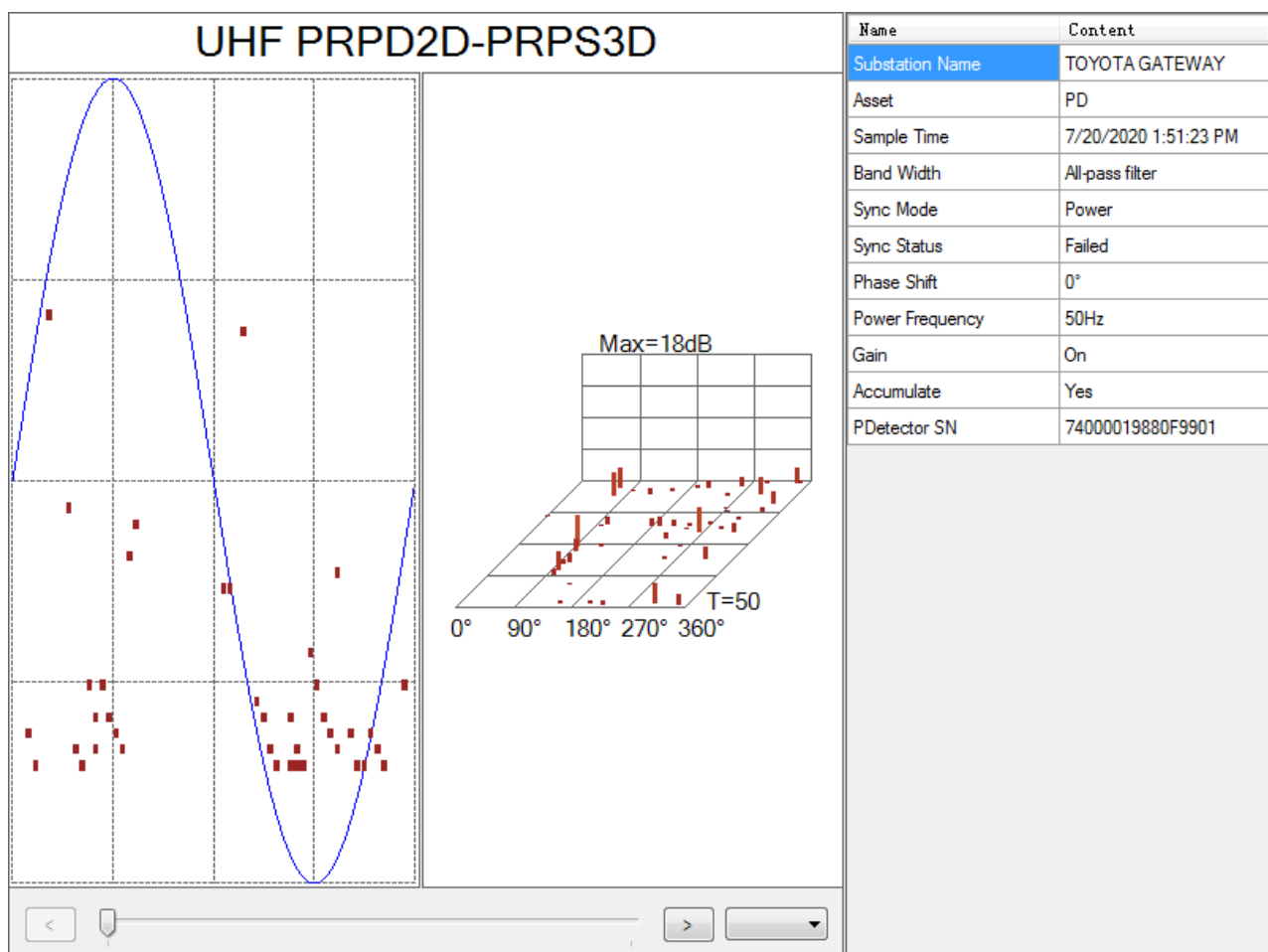


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	CAPACITOR
VOLTAGE LEVEL	22 KV

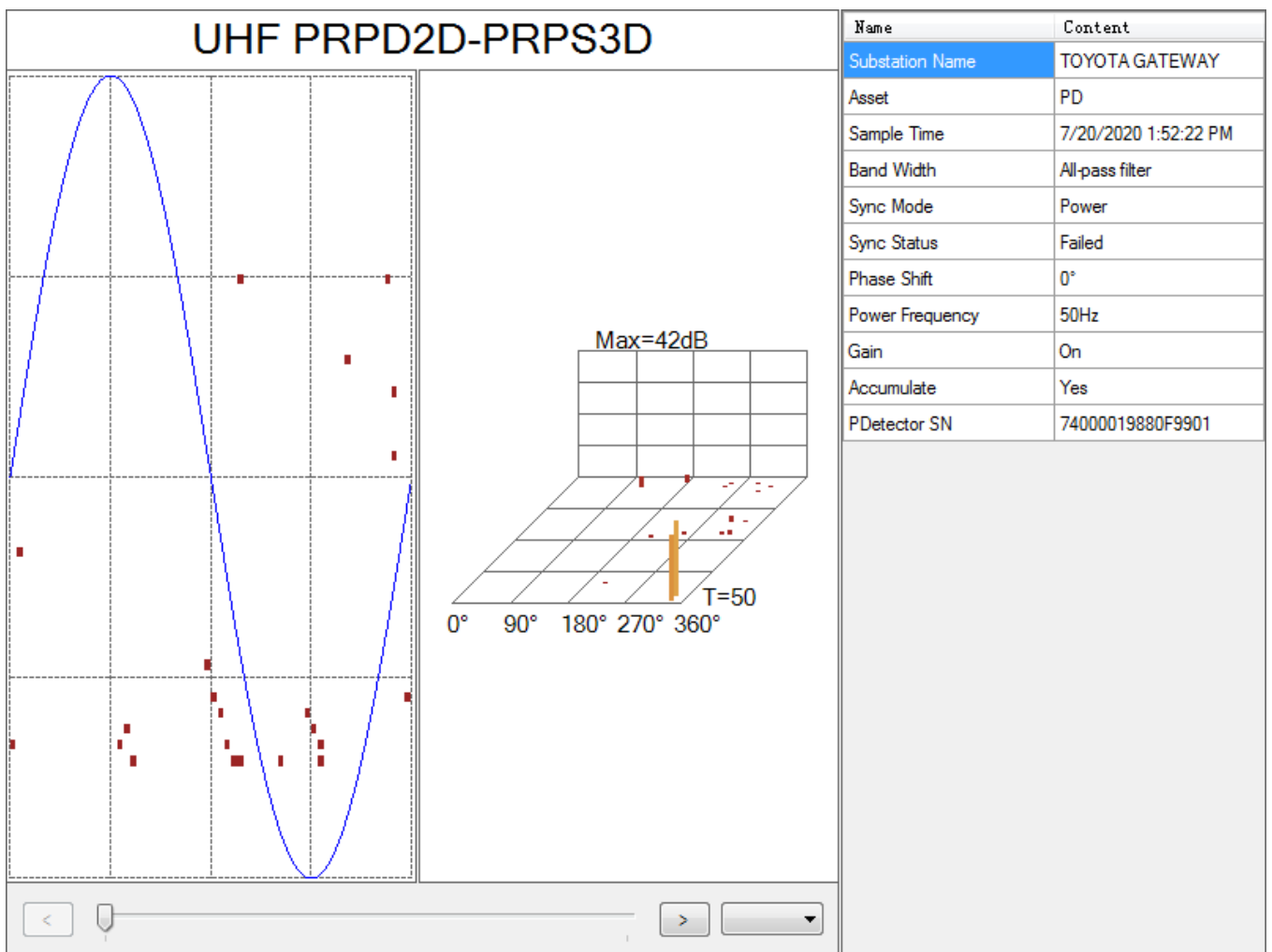


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	2-4 FEEDER
VOLTAGE LEVEL	22 KV

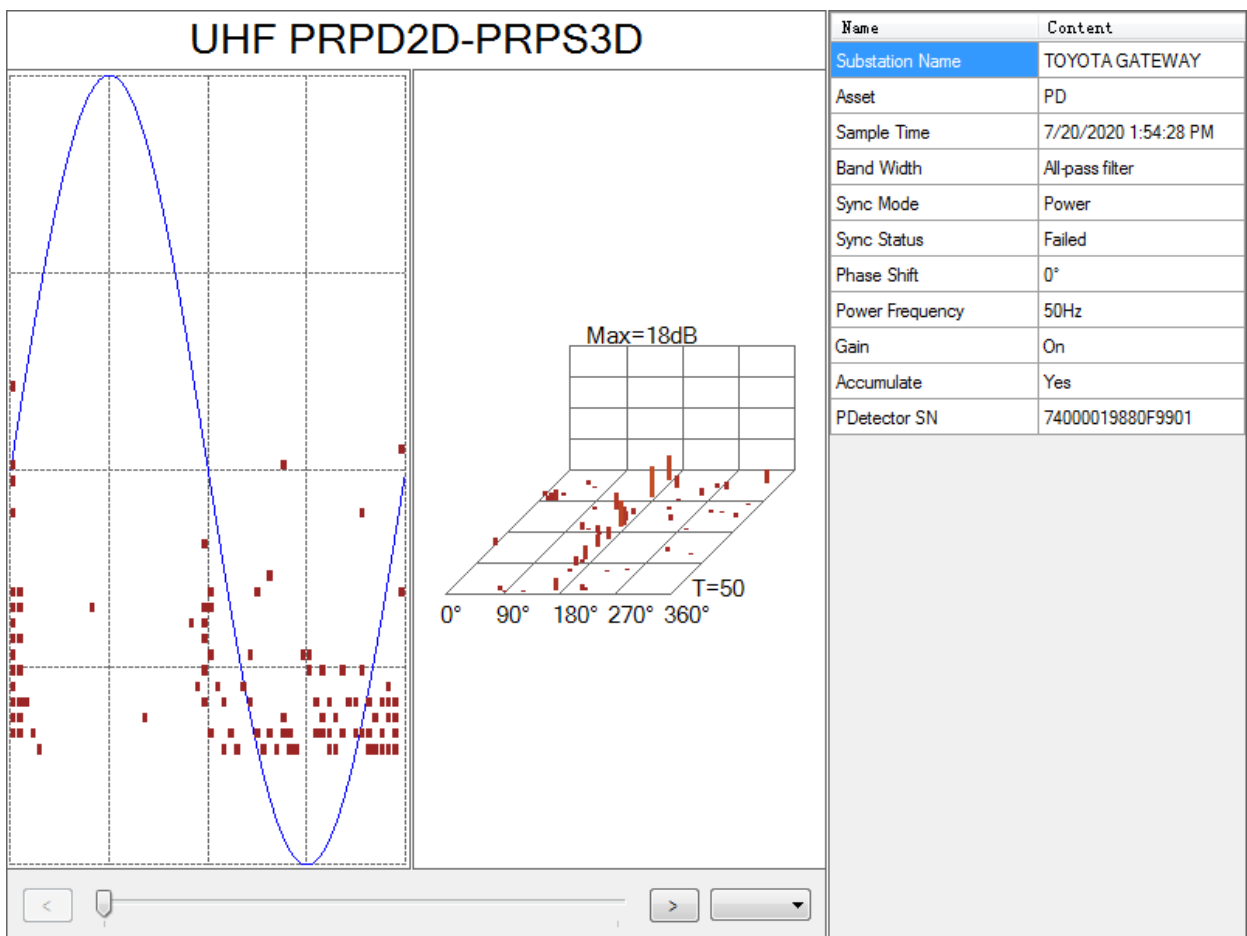


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	2-3 FEEDER
VOLTAGE LEVEL	22 KV

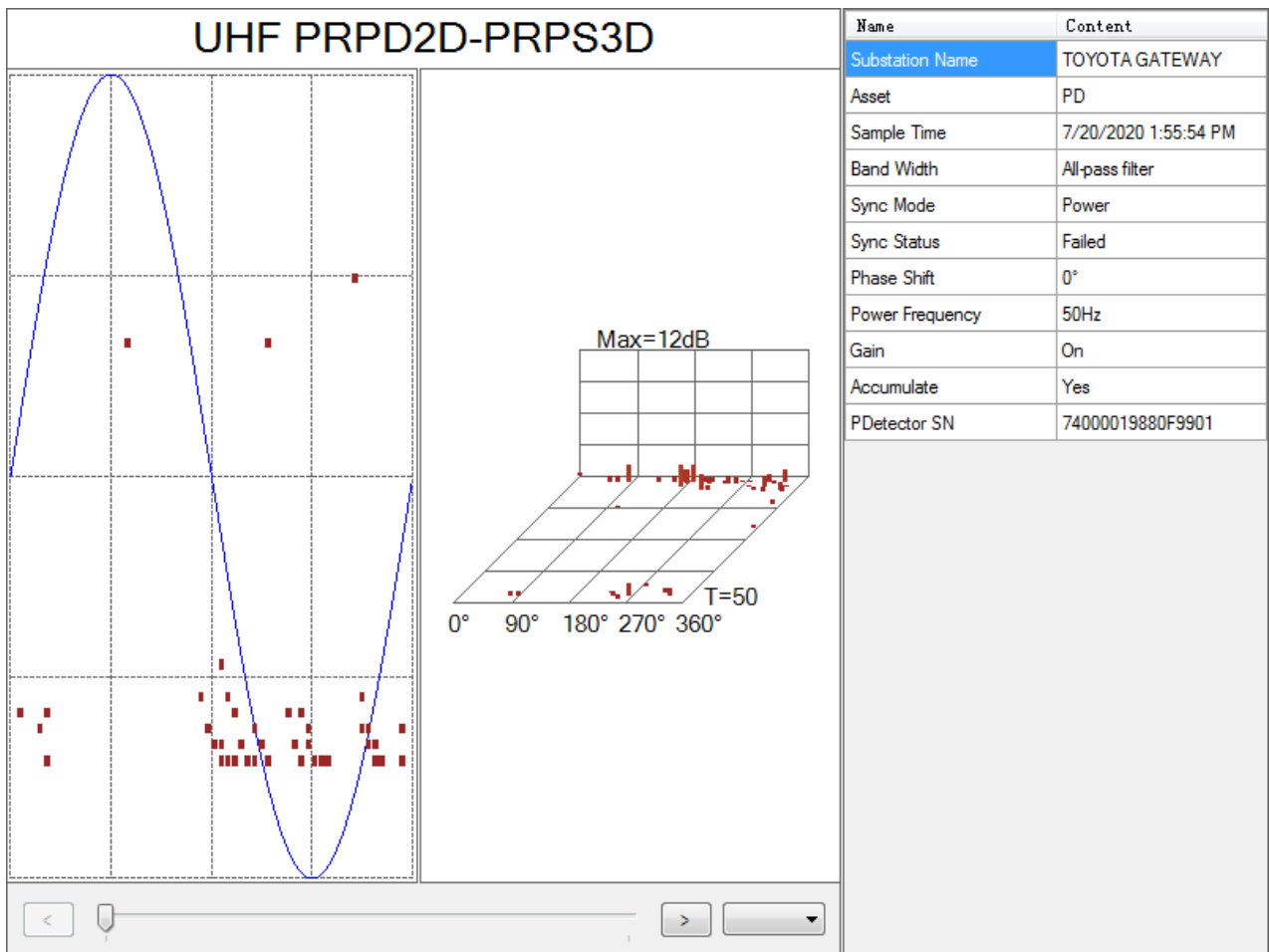


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	2-2 FEEDER
VOLTAGE LEVEL	22 KV

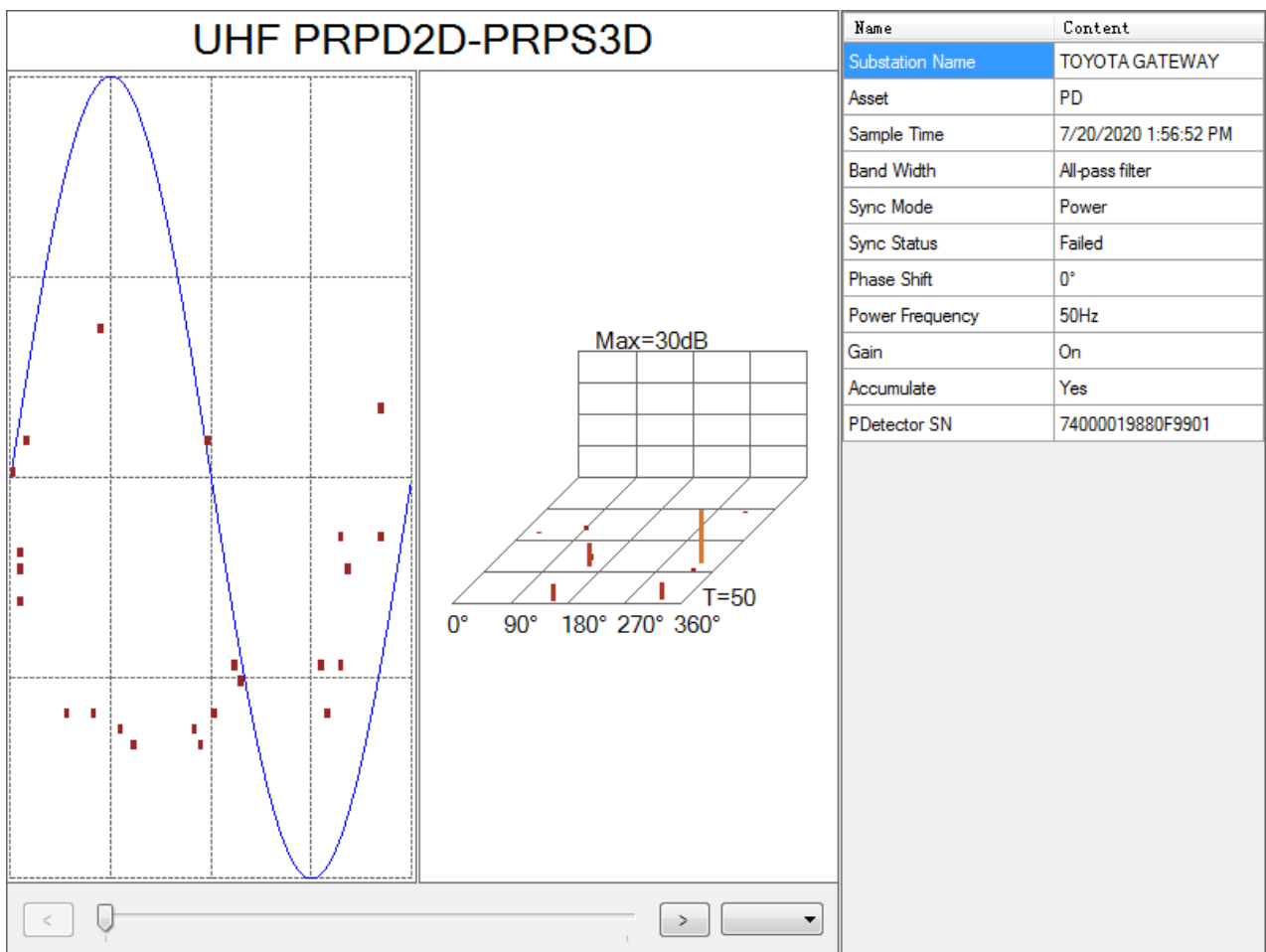


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	2-1 FEEDER
VOLTAGE LEVEL	22 KV

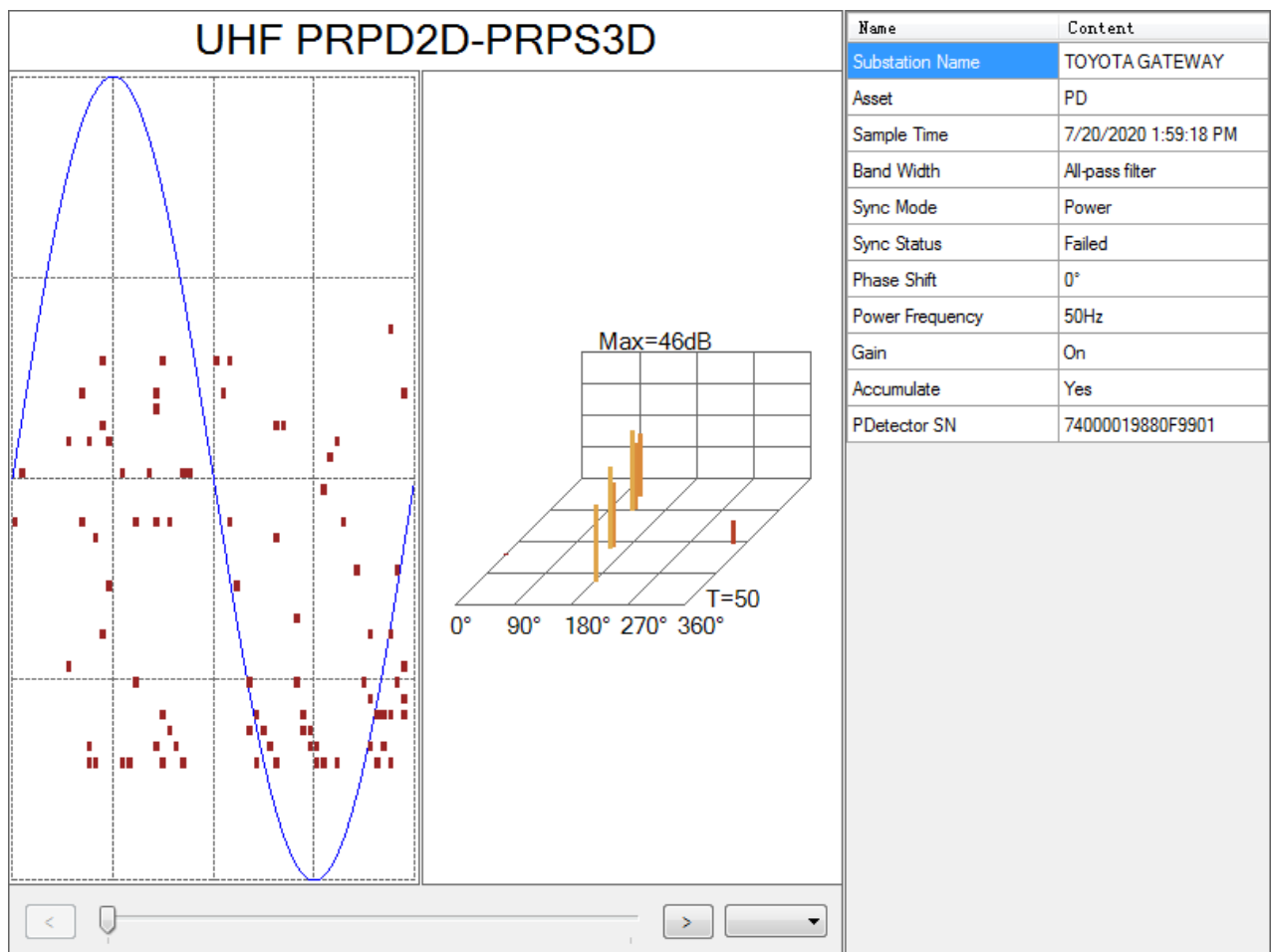


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	NO.2 TR SEC
VOLTAGE LEVEL	22 KV



COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	The partial discharge should be inspected in the next year.
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	NO.2 BANK BUS-VT
VOLTAGE LEVEL	22 KV

UHF PRPD2D-PRPS3D

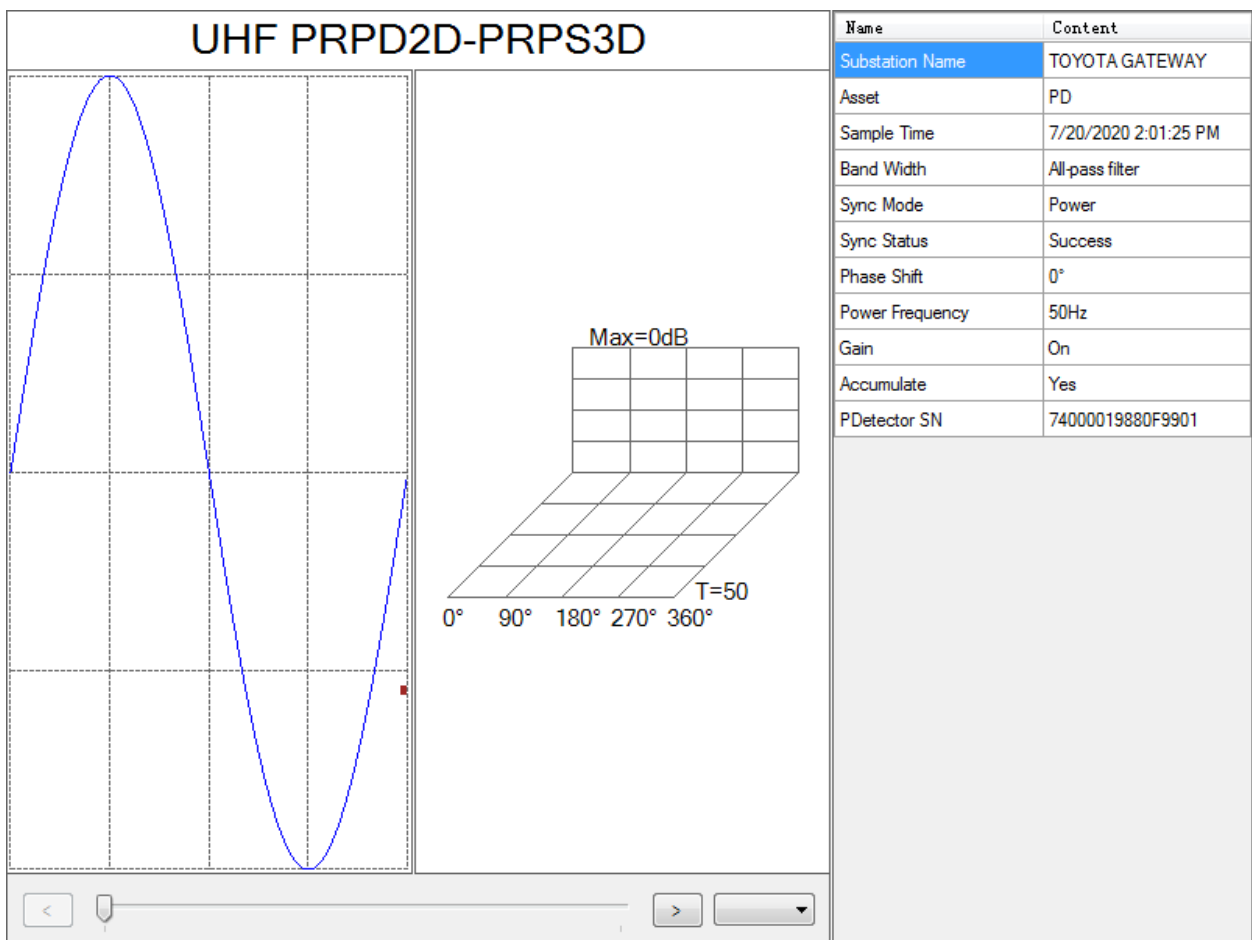
Name	Content
Substation Name	TOYOTA GATEWAY
Asset	PD
Sample Time	7/20/2020 2:00:16 PM
Band Width	All-pass filter
Sync Mode	Power
Sync Status	Failed
Phase Shift	0°
Power Frequency	50Hz
Gain	On
Accumulate	Yes
PDetector SN	74000019880F9901

COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	NO.1 BANK BUS-TIE
VOLTAGE LEVEL	22 KV

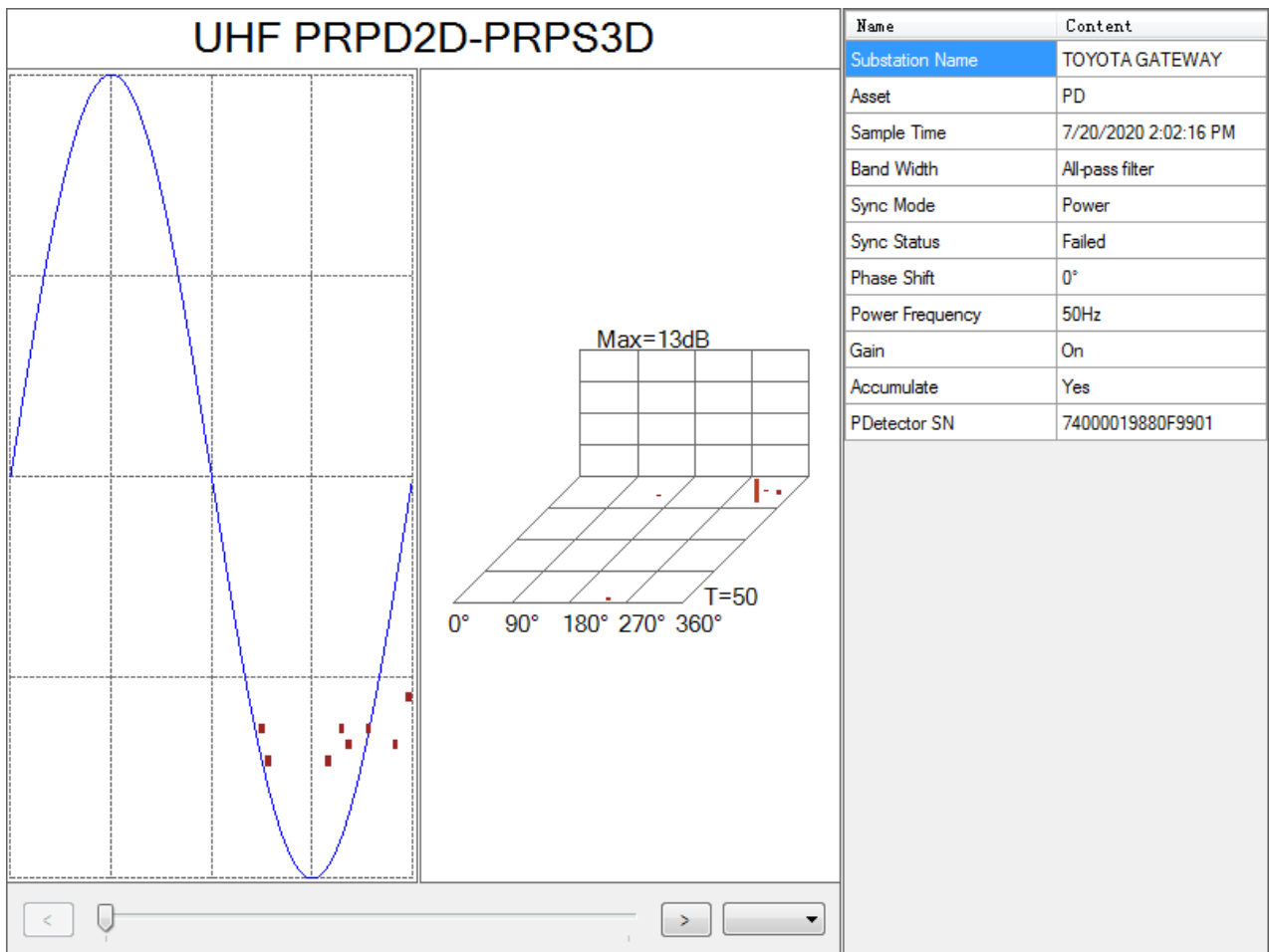


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	STATION TR
VOLTAGE LEVEL	22 KV



COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	CAPACITOR
VOLTAGE LEVEL	22 KV

UHF PRPD2D-PRPS3D

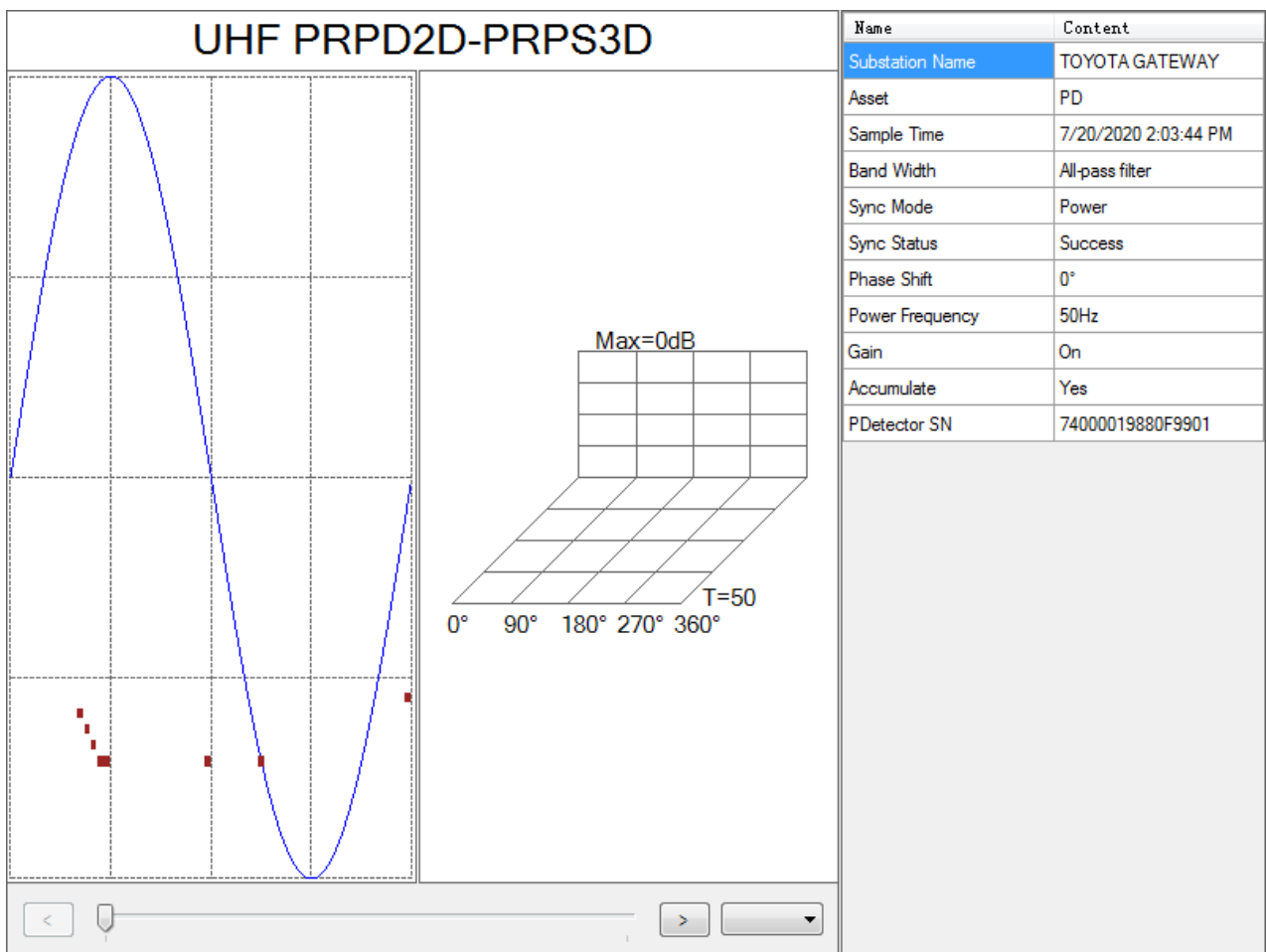
Name	Content
Substation Name	TOYOTA GATEWAY
Asset	PD
Sample Time	7/20/2020 2:03:01 PM
Band Width	All-pass filter
Sync Mode	Power
Sync Status	Success
Phase Shift	0°
Power Frequency	50Hz
Gain	On
Accumulate	Yes
PDetector SN	74000019880F9901

COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	1-4 FEEDER
VOLTAGE LEVEL	22 KV

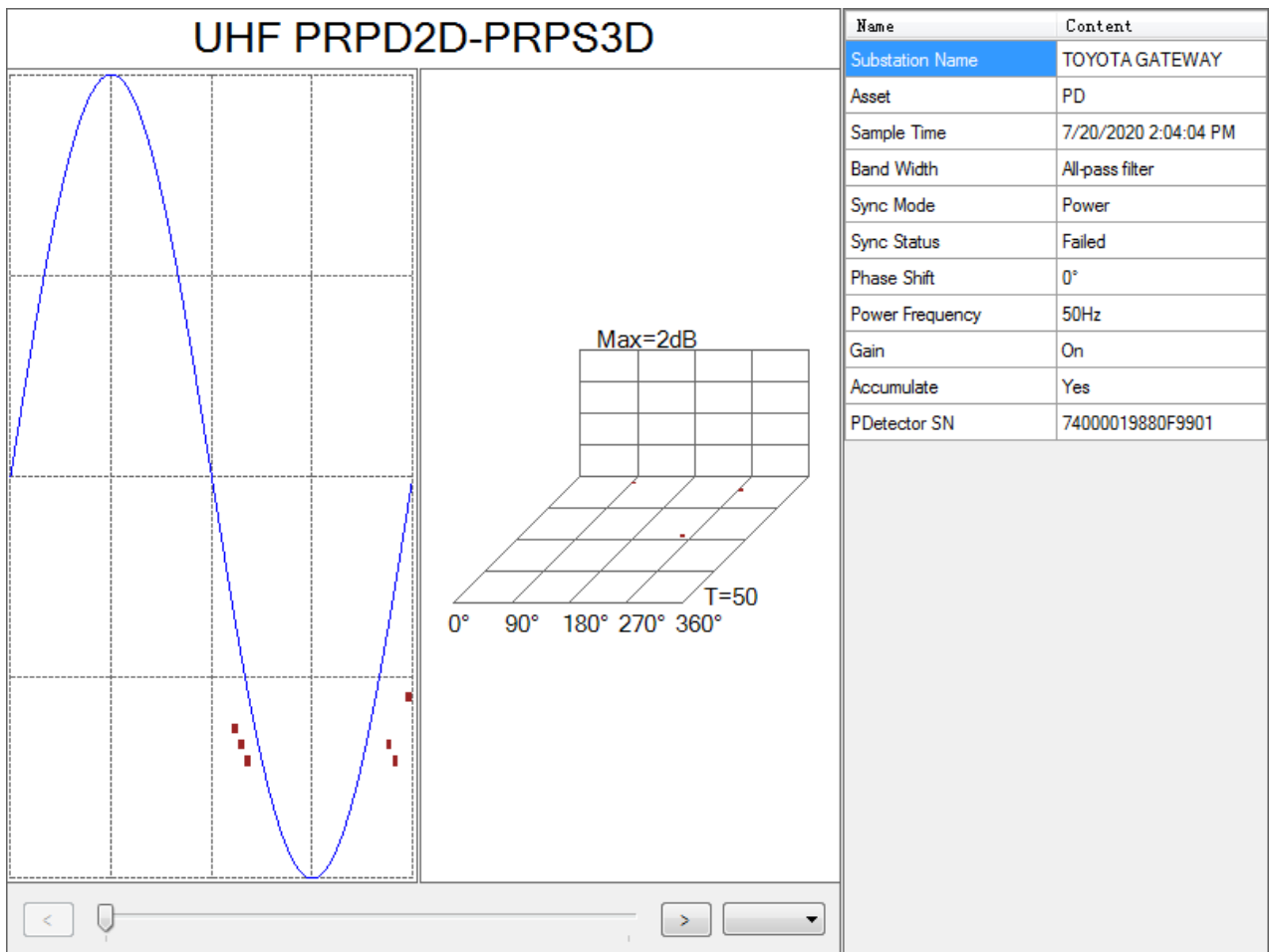


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	1-3 FEEDER
VOLTAGE LEVEL	22 KV

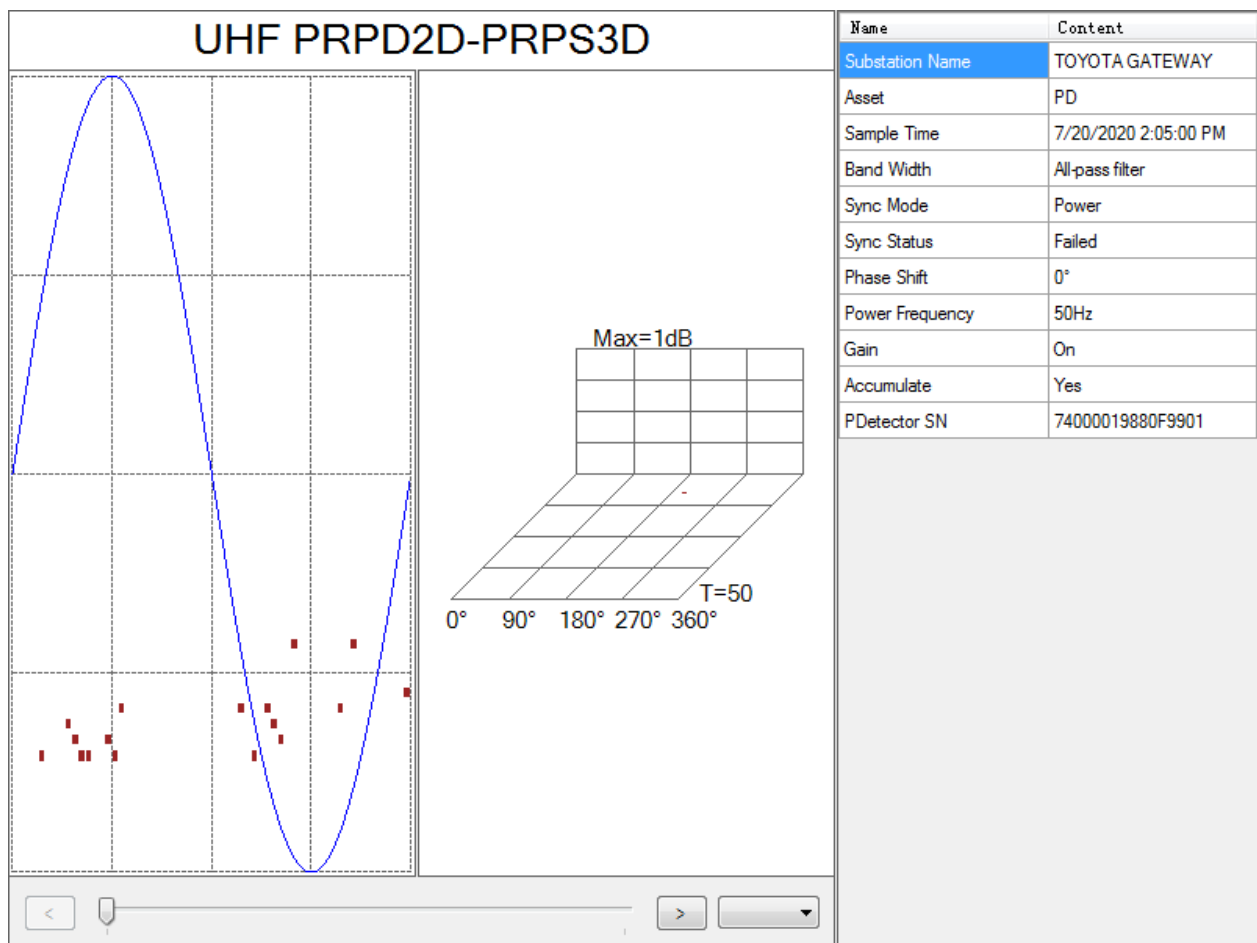


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	1-2 FEEDER
VOLTAGE LEVEL	22 KV

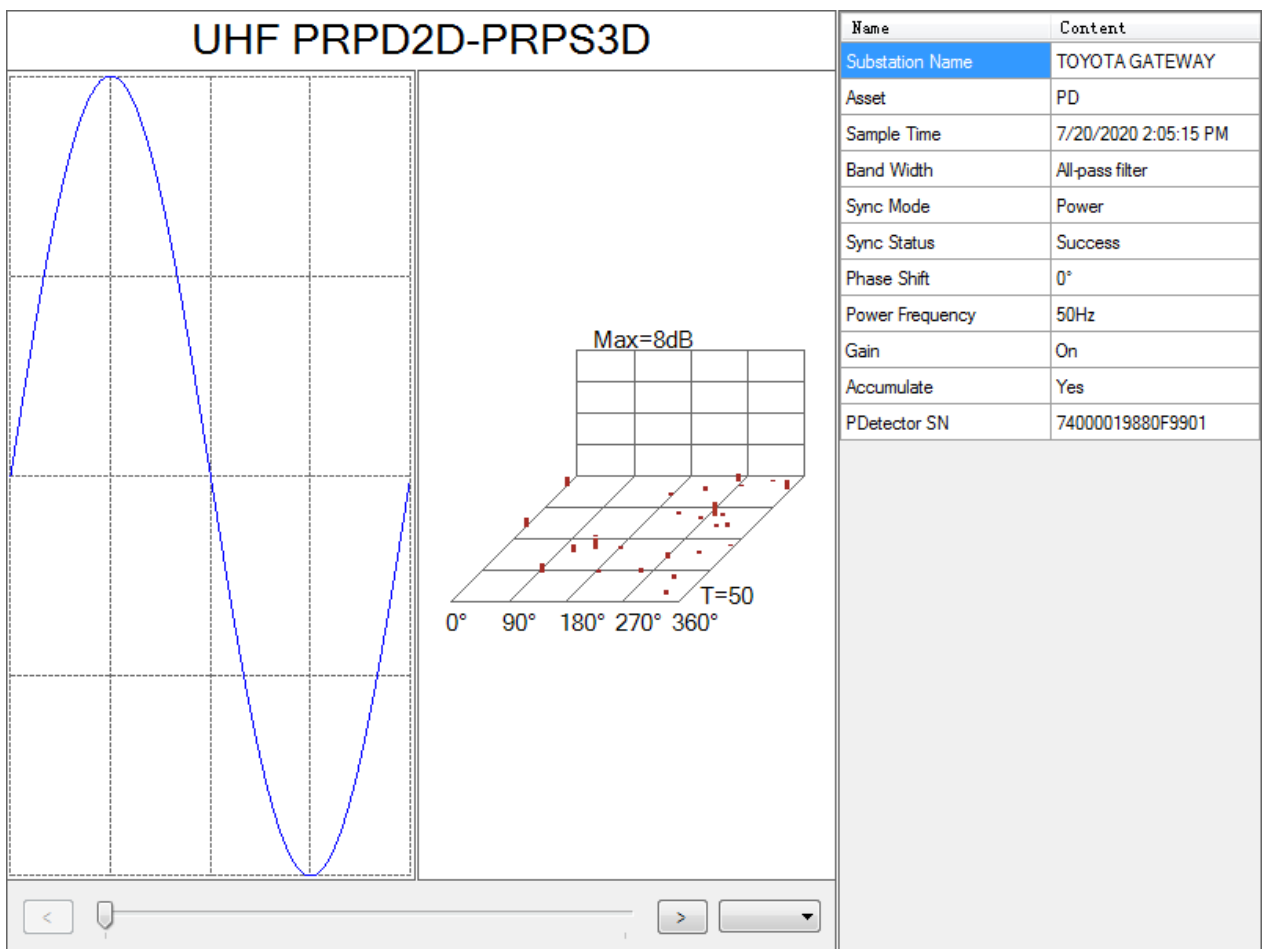


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	1-1 FEEDER
VOLTAGE LEVEL	22 KV

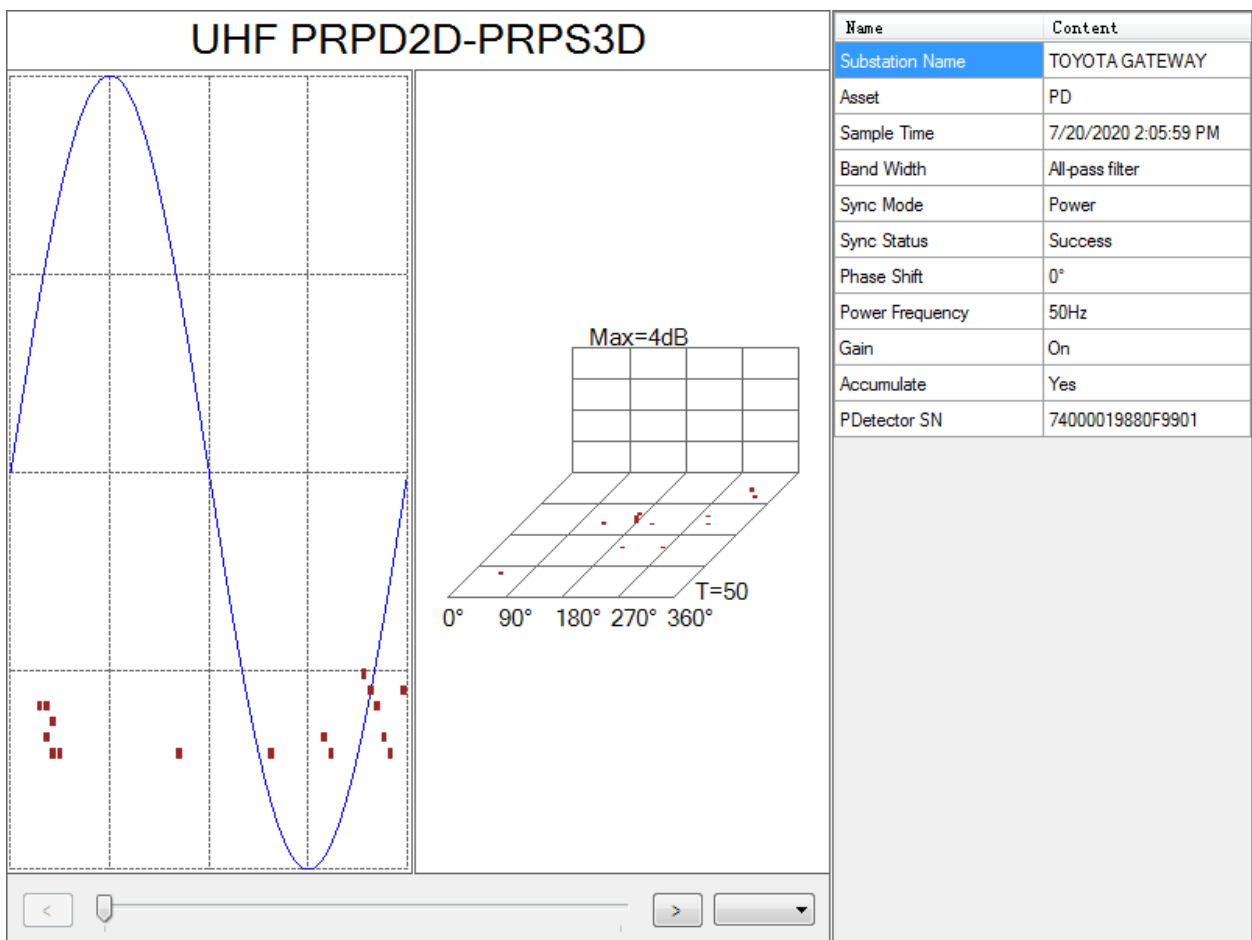


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	NO.1 TR SEC
VOLTAGE LEVEL	22 KV

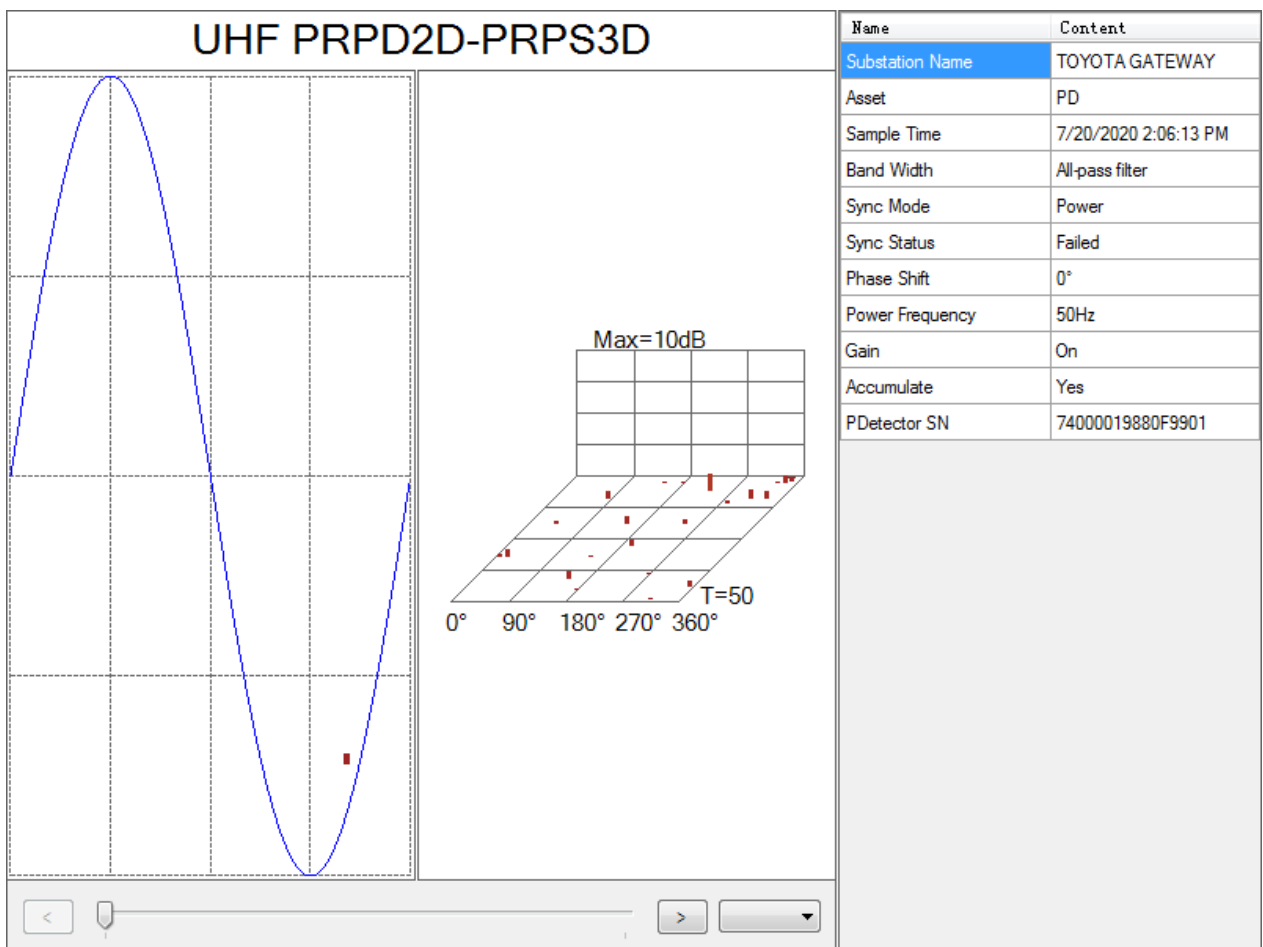


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	NO.1 BANK BUS VT
VOLTAGE LEVEL	22 KV

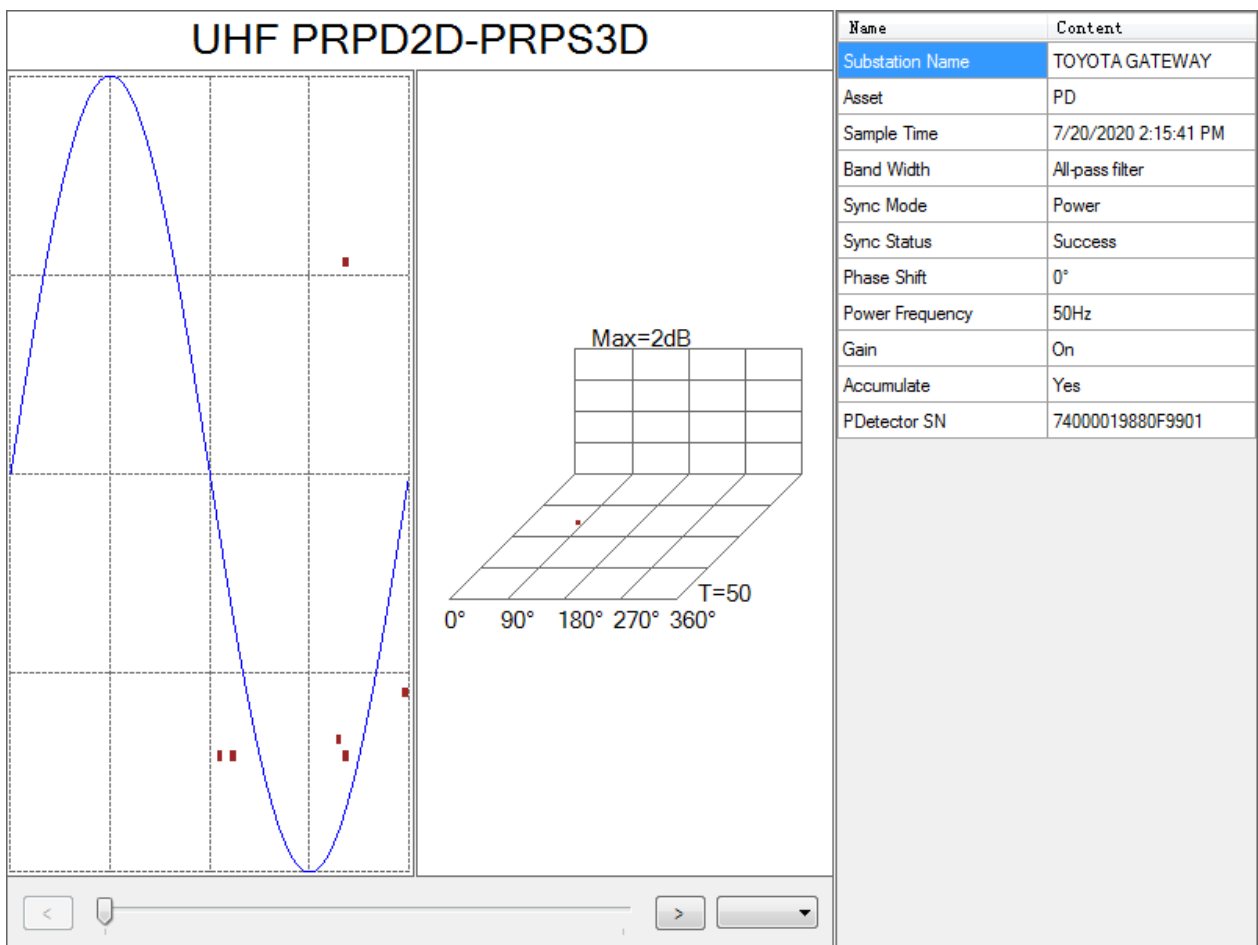


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	FOR STR ANCLVAC DISTR BUTION BOX
VOLTAGE LEVEL	22 KV

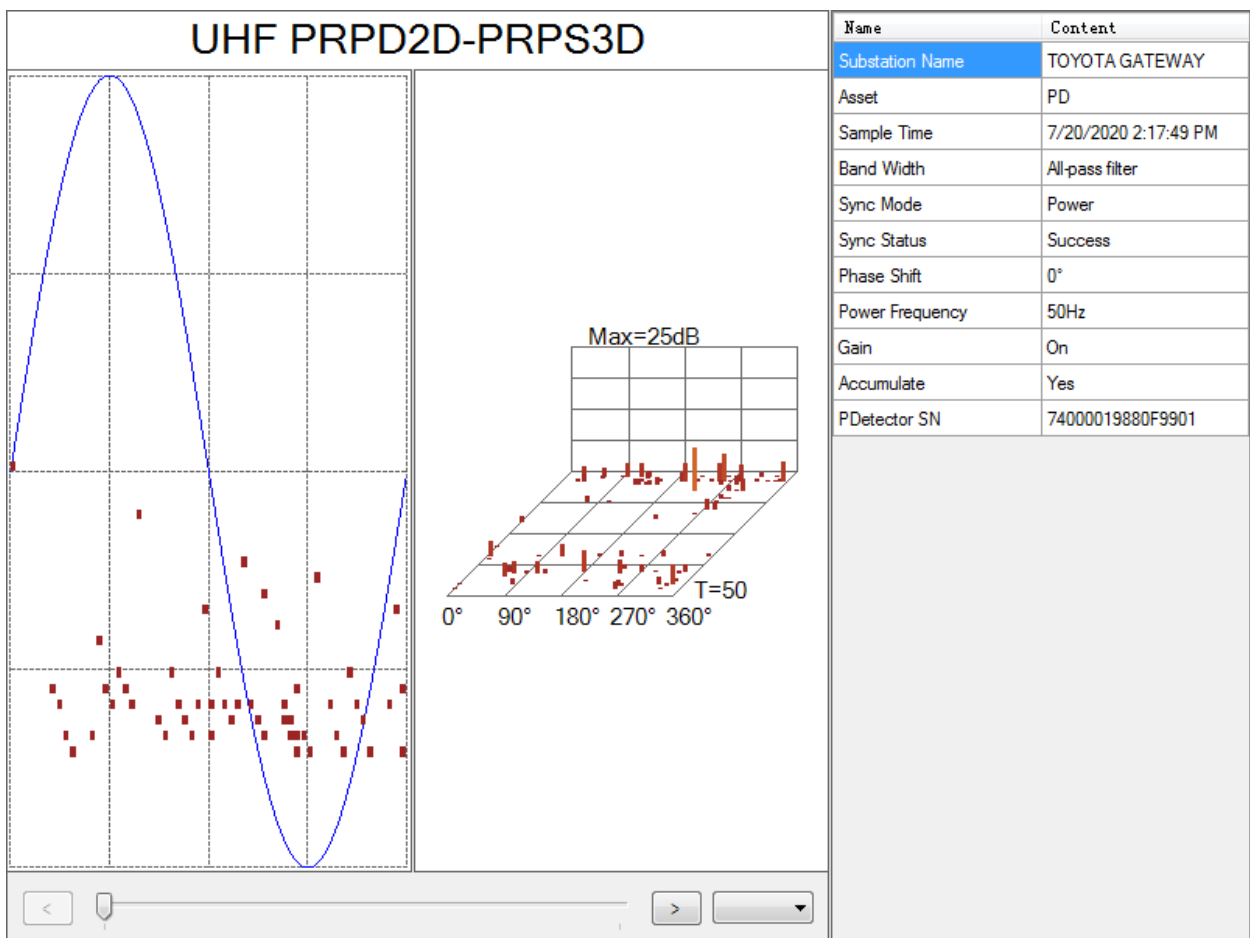


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	TO SS-ADMIN
VOLTAGE LEVEL	22 KV

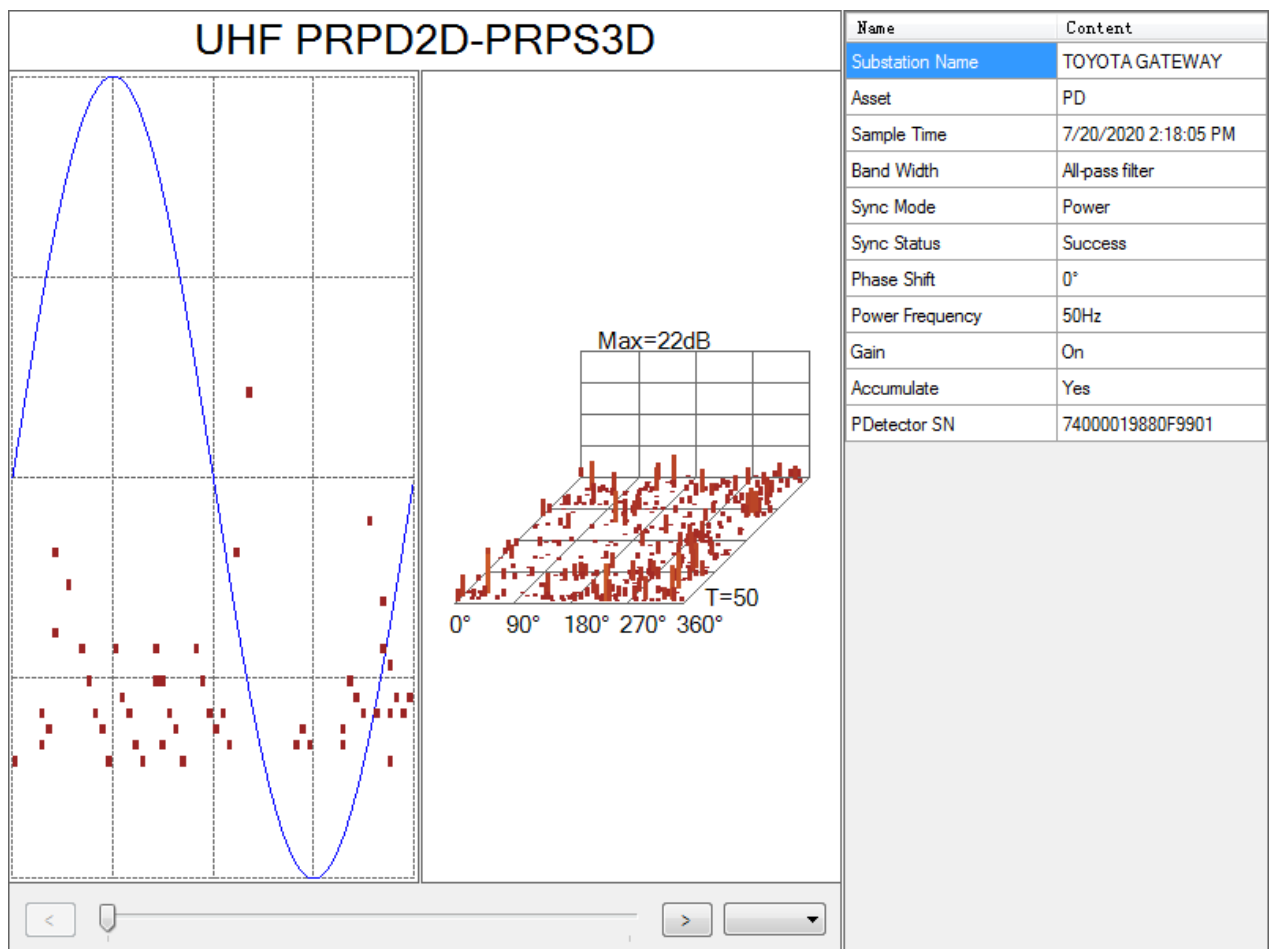


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	FROM TR 115/22 KV
VOLTAGE LEVEL	22 KV

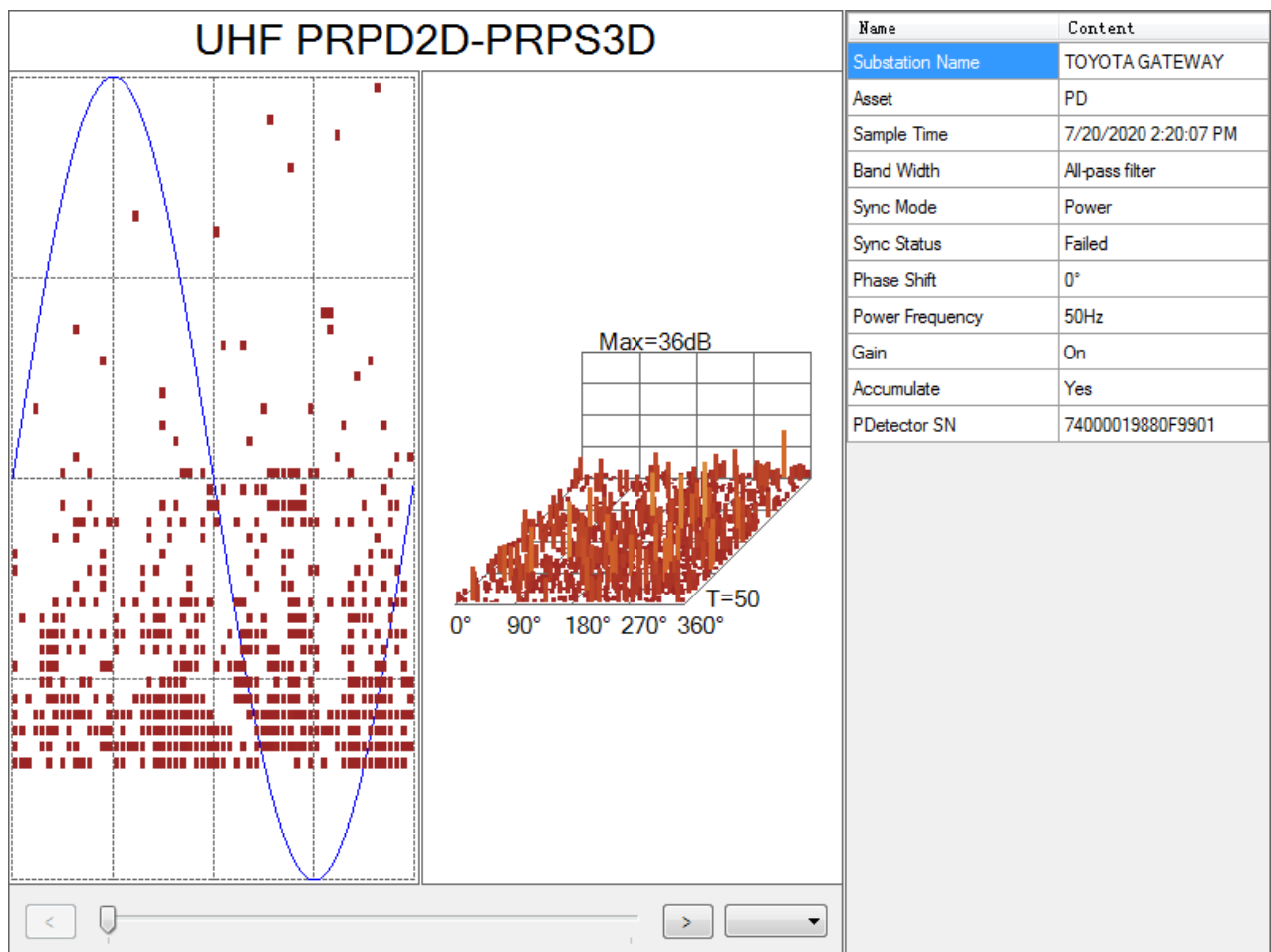


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	DT GAS TR.1
VOLTAGE LEVEL	22 KV

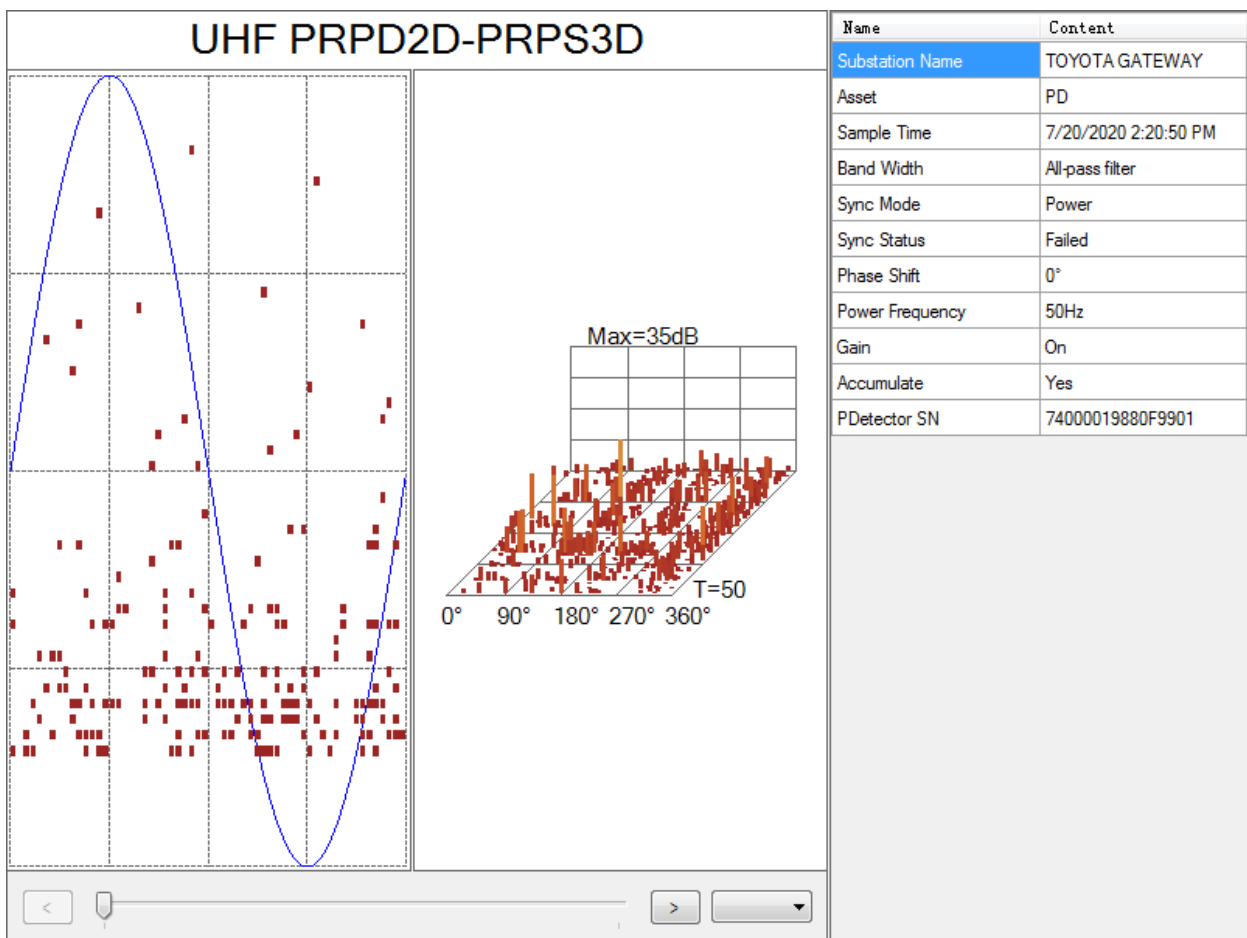


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	DT GAS TR.1
VOLTAGE LEVEL	22 KV

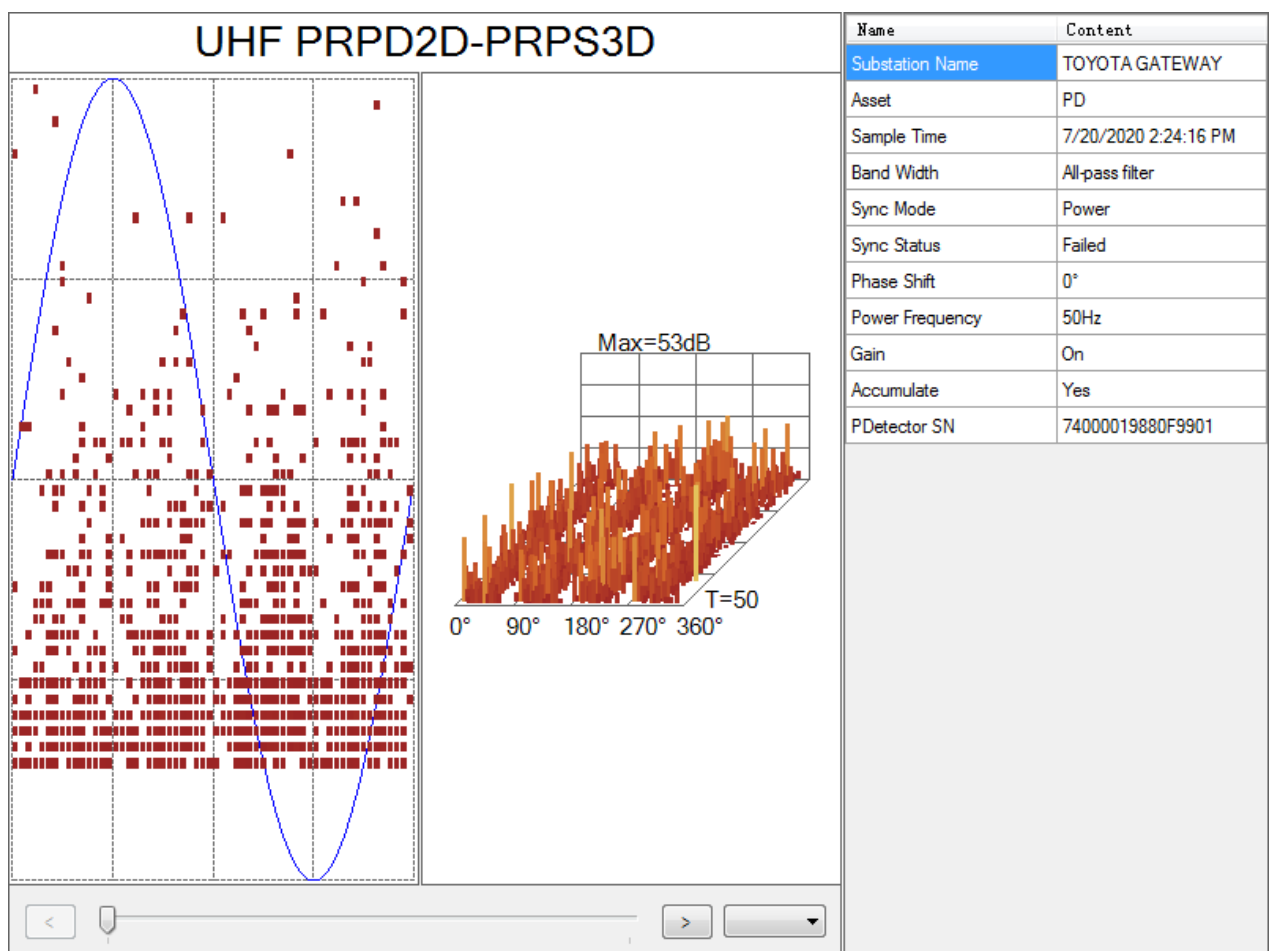


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	INCOMING CABLE BOX
VOLTAGE LEVEL	22 KV

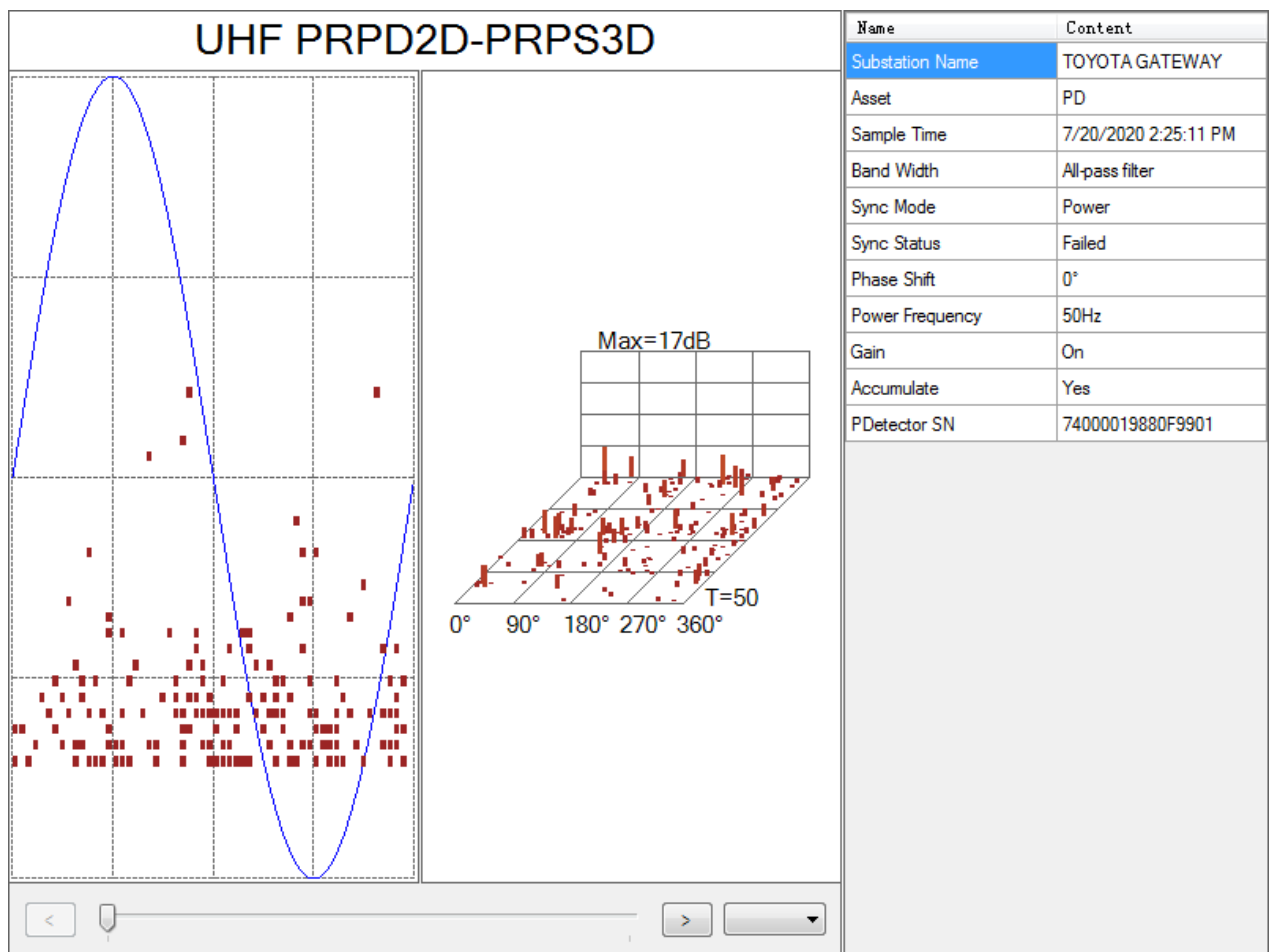


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	CAPACITOR BOX NO.4
VOLTAGE LEVEL	22 KV

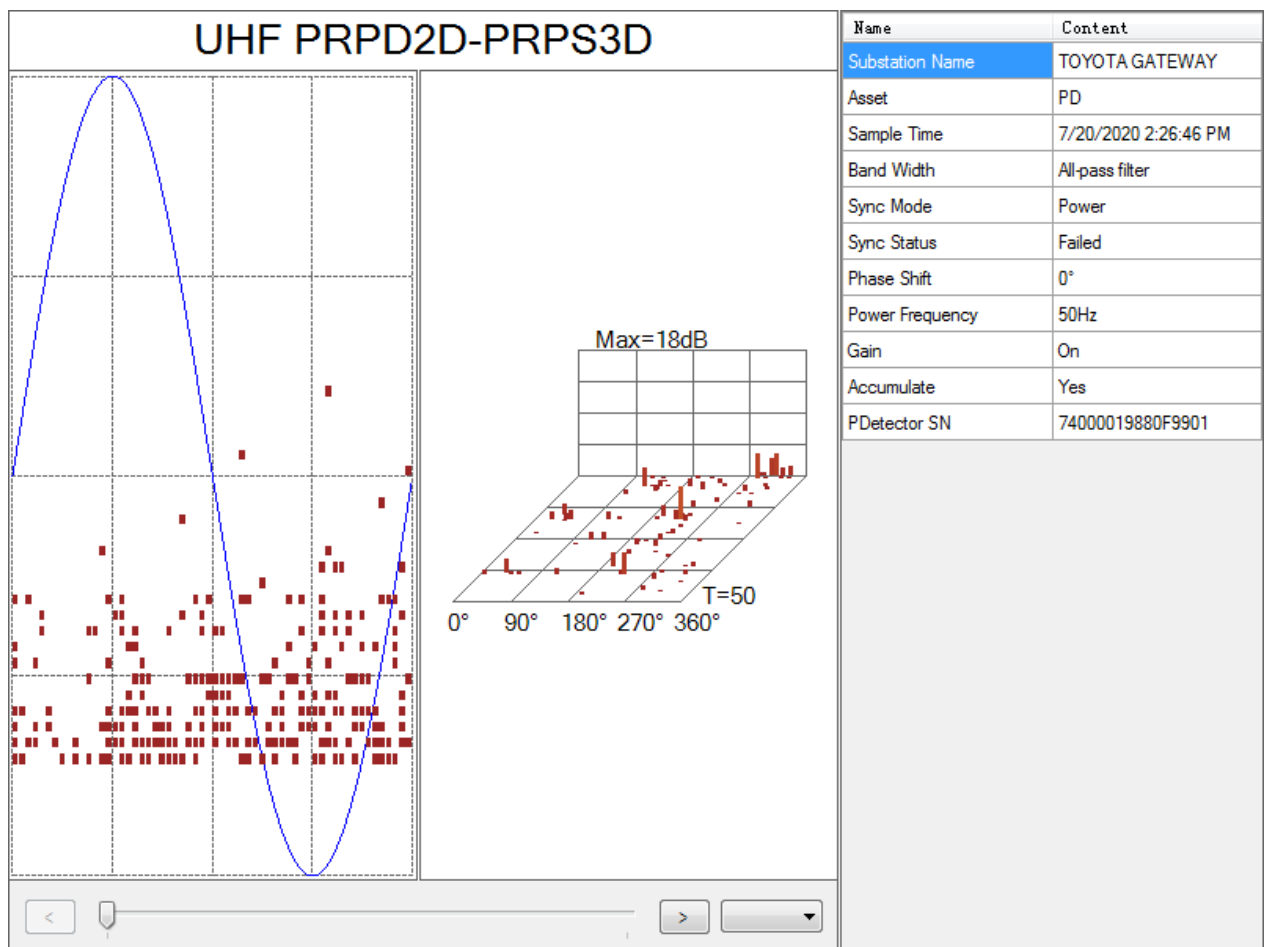


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	CAPACITOR BOX NO.3
VOLTAGE LEVEL	22 KV

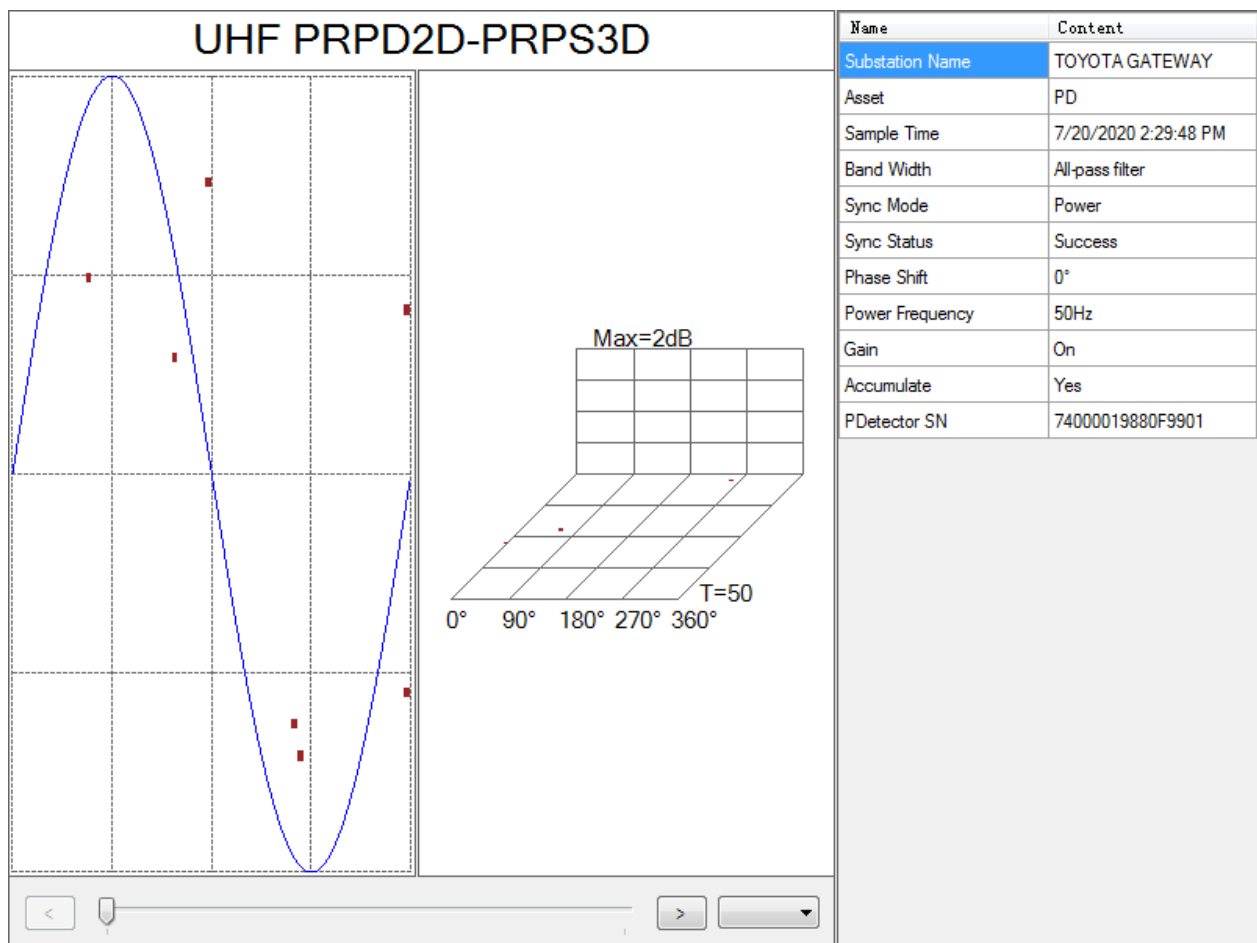


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	INCOMING CABLE BOX
VOLTAGE LEVEL	22 KV

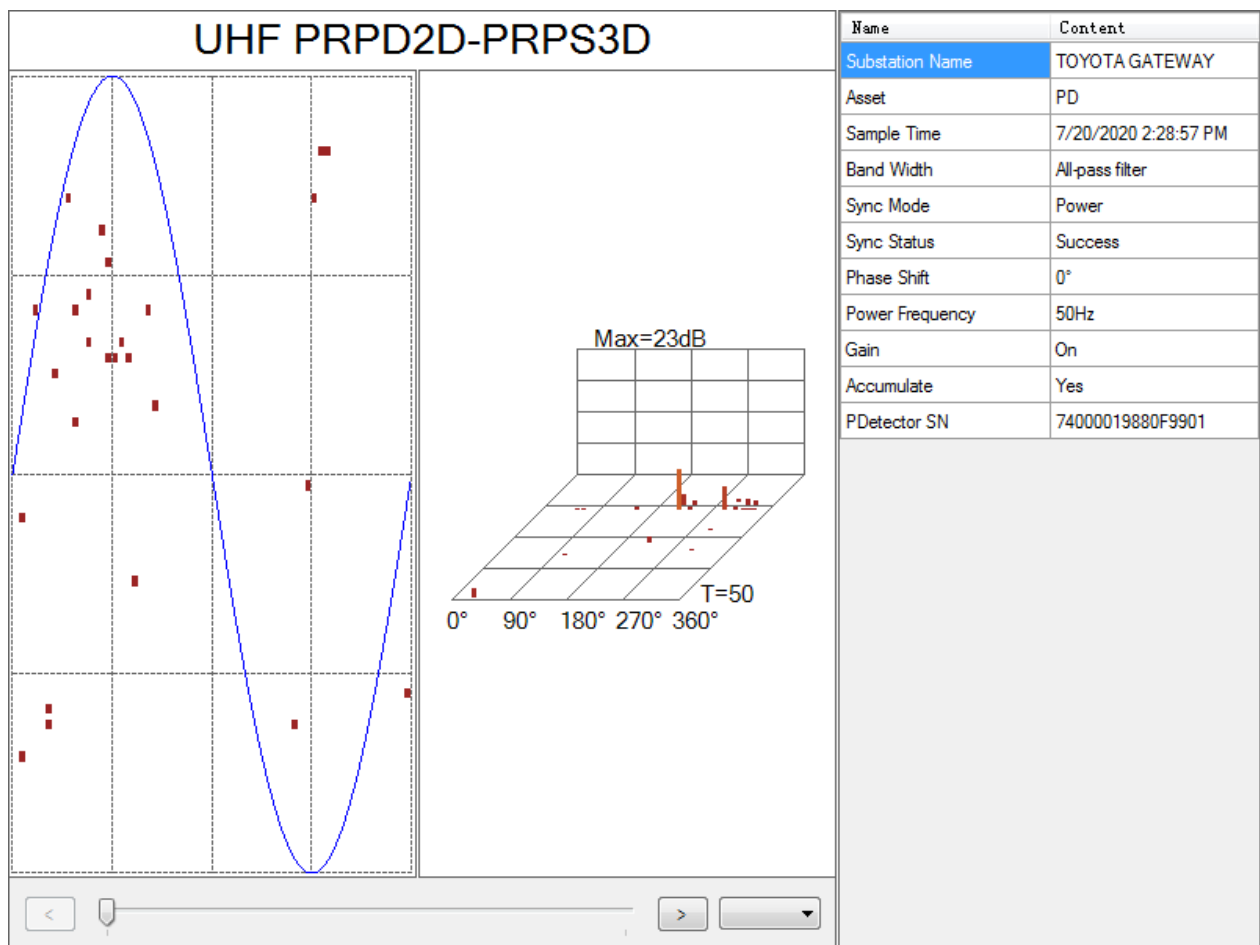


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	CAPACITOR BOX NO.2
VOLTAGE LEVEL	22 KV

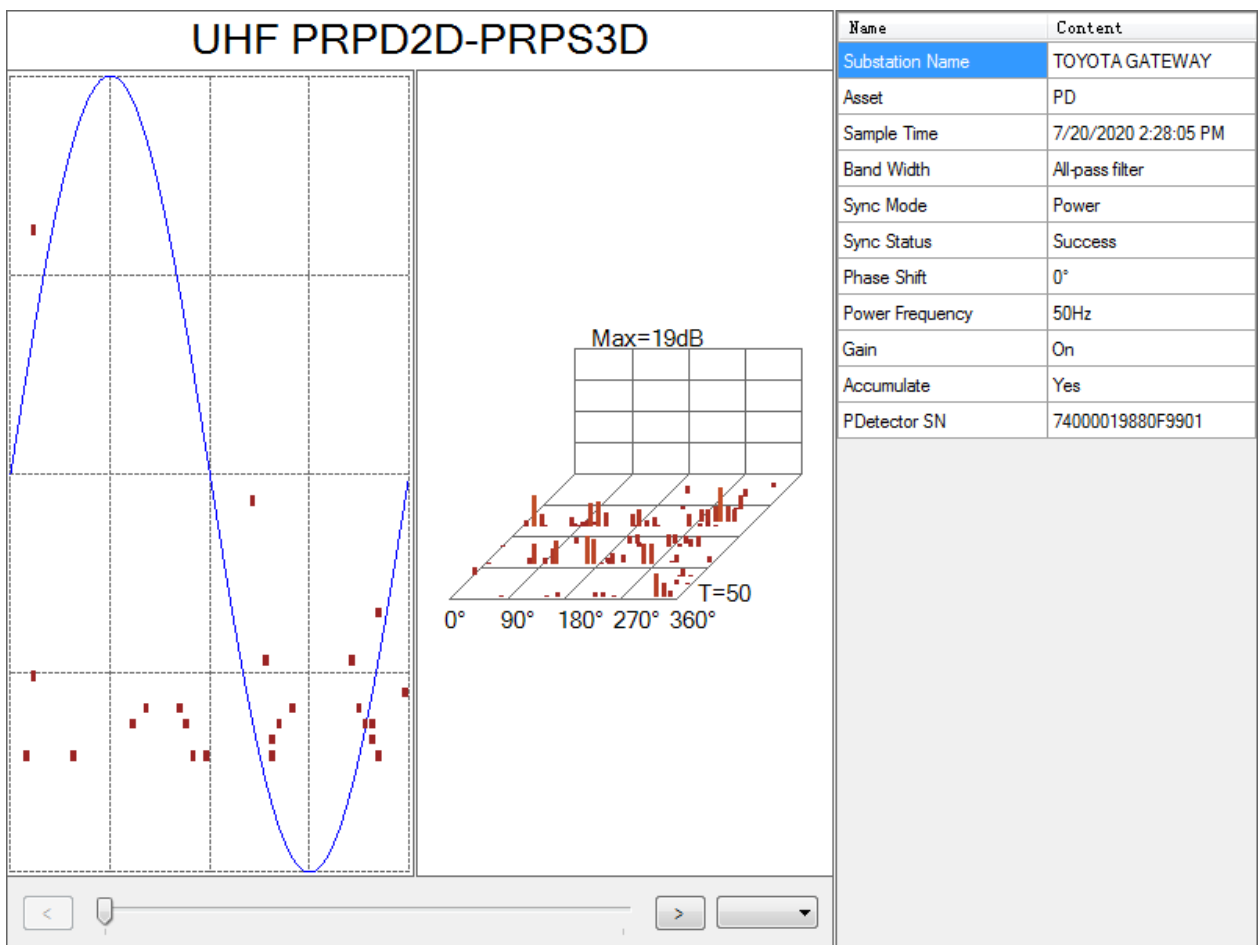


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY UHF MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	CAPACITOR BOX NO.1
VOLTAGE LEVEL	22 KV

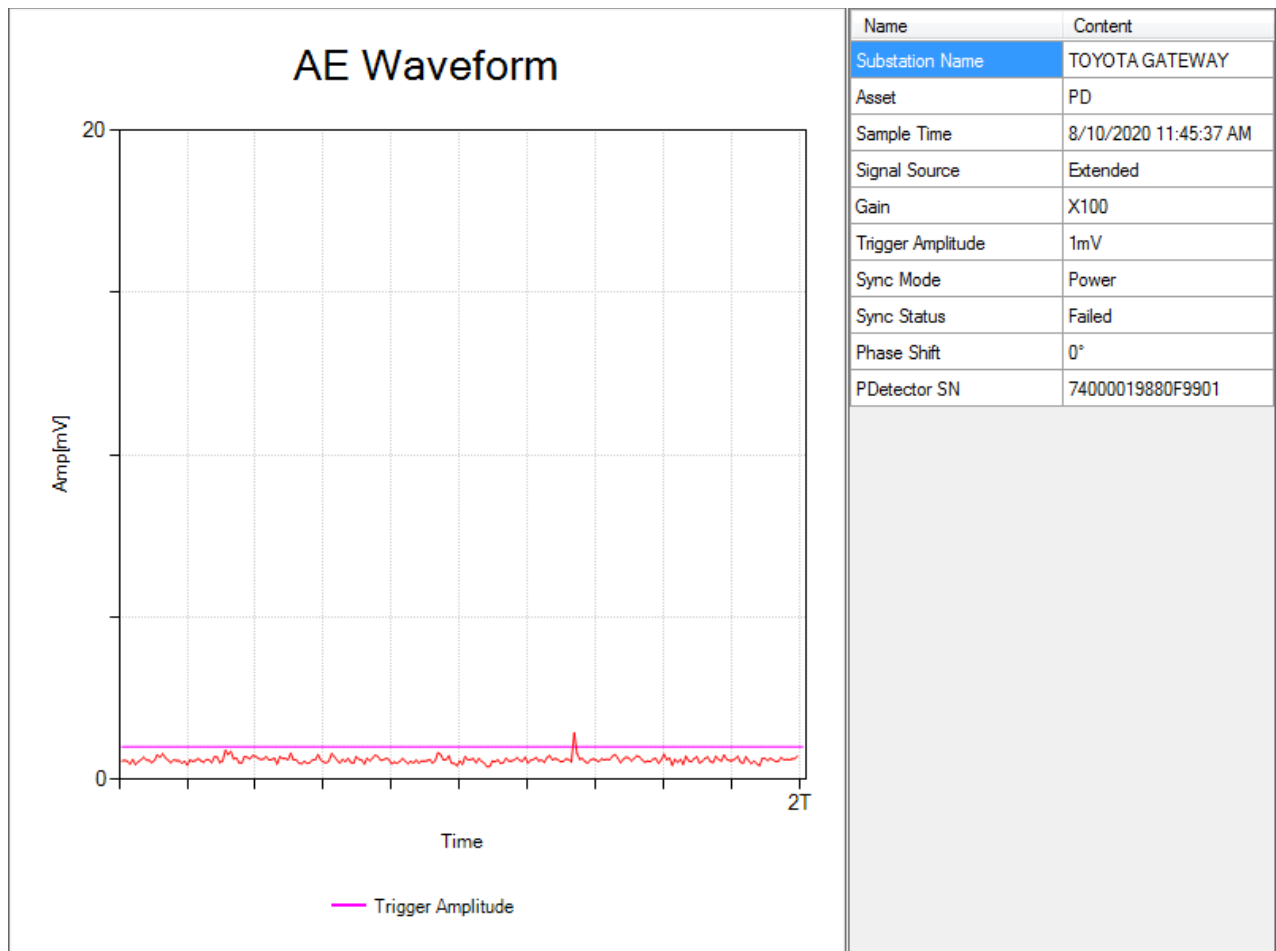


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	NO.BANK BUS VT (BACK PANEL)
VOLTAGE LEVEL	22KV

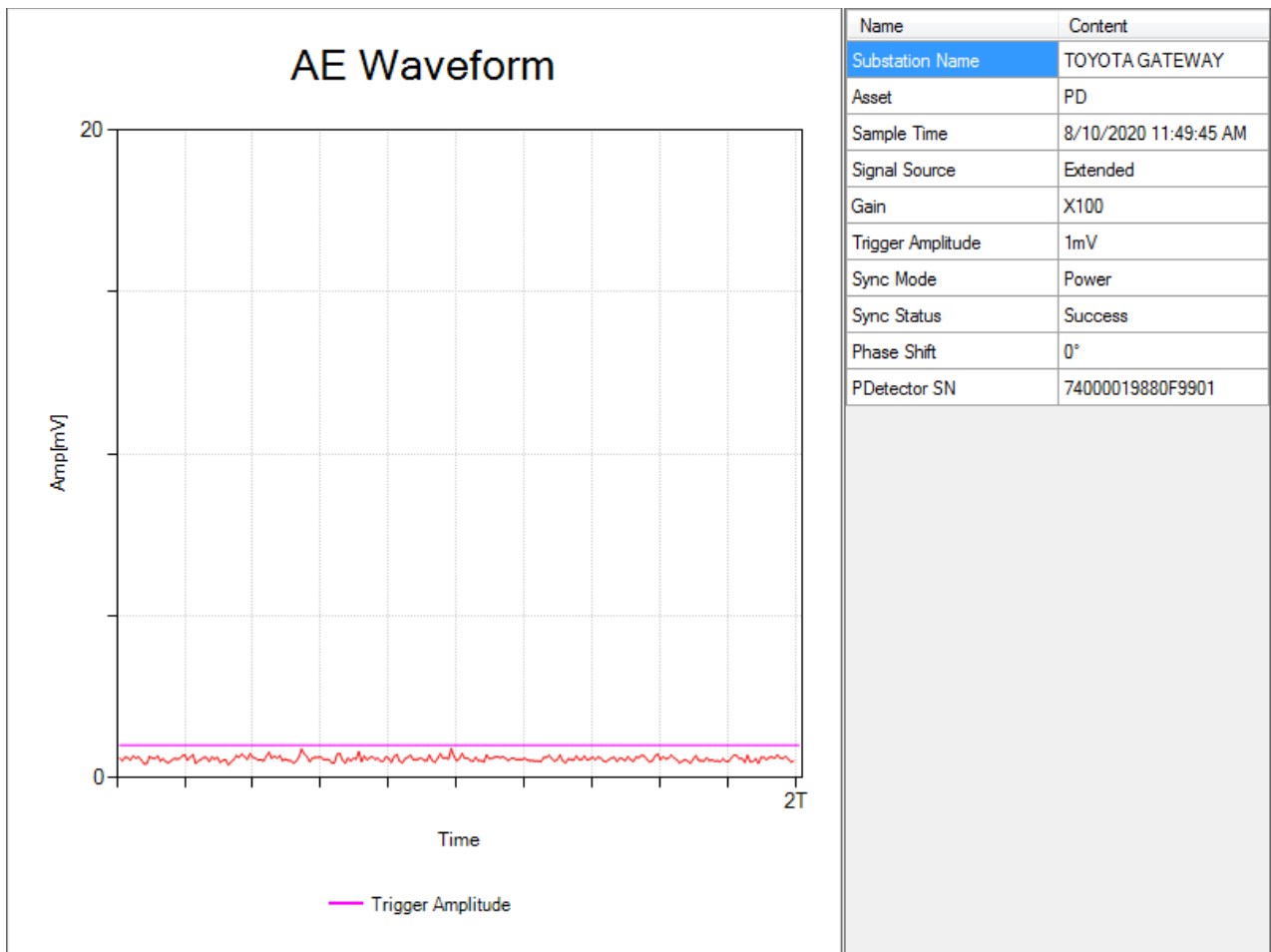


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	NO.BANK BUS VT (FRONT PANEL)
VOLTAGE LEVEL	22 KV

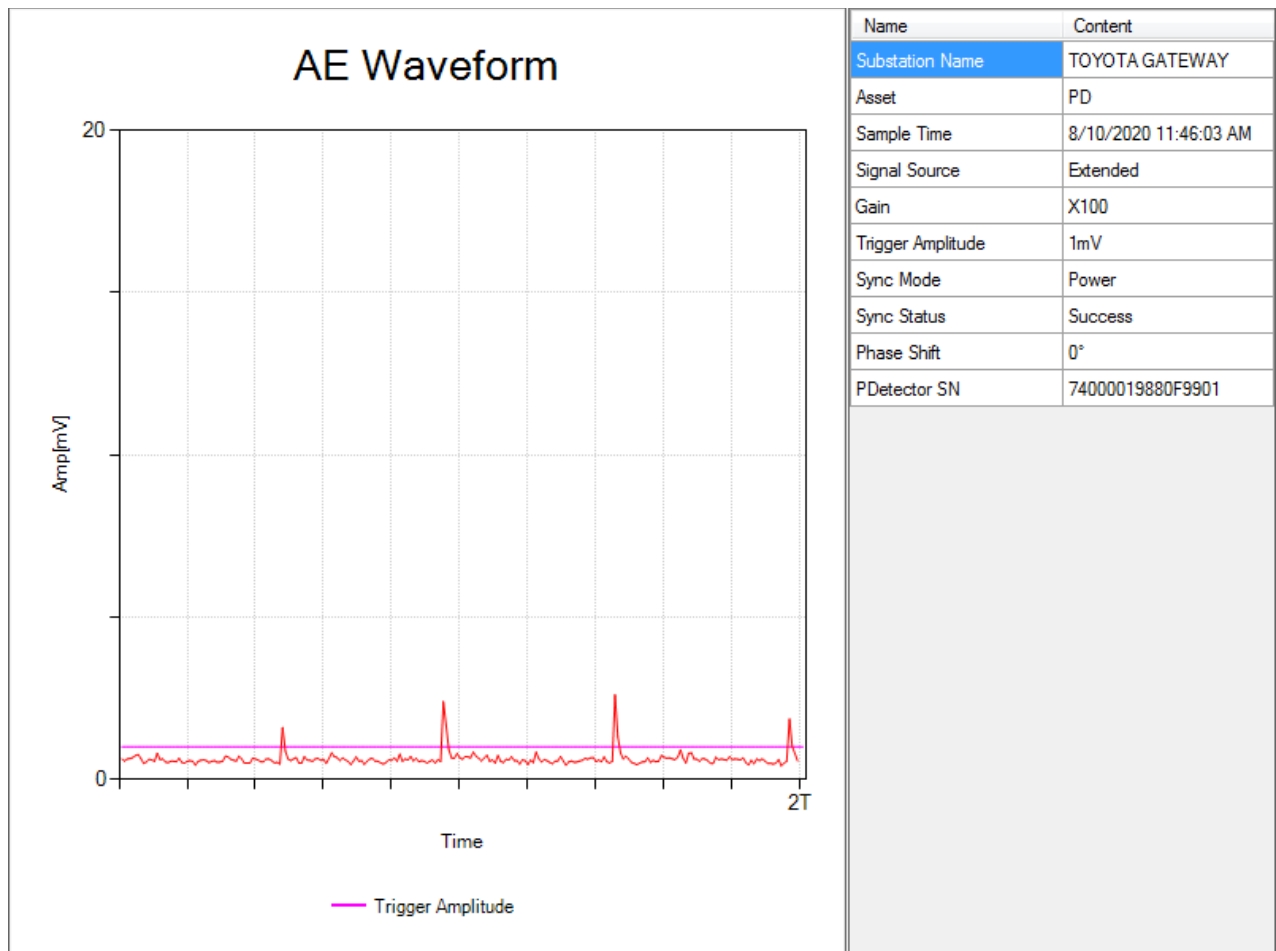


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	NO.1 TR.SEC. (BACK PANEL)
VOLTAGE LEVEL	22 KV

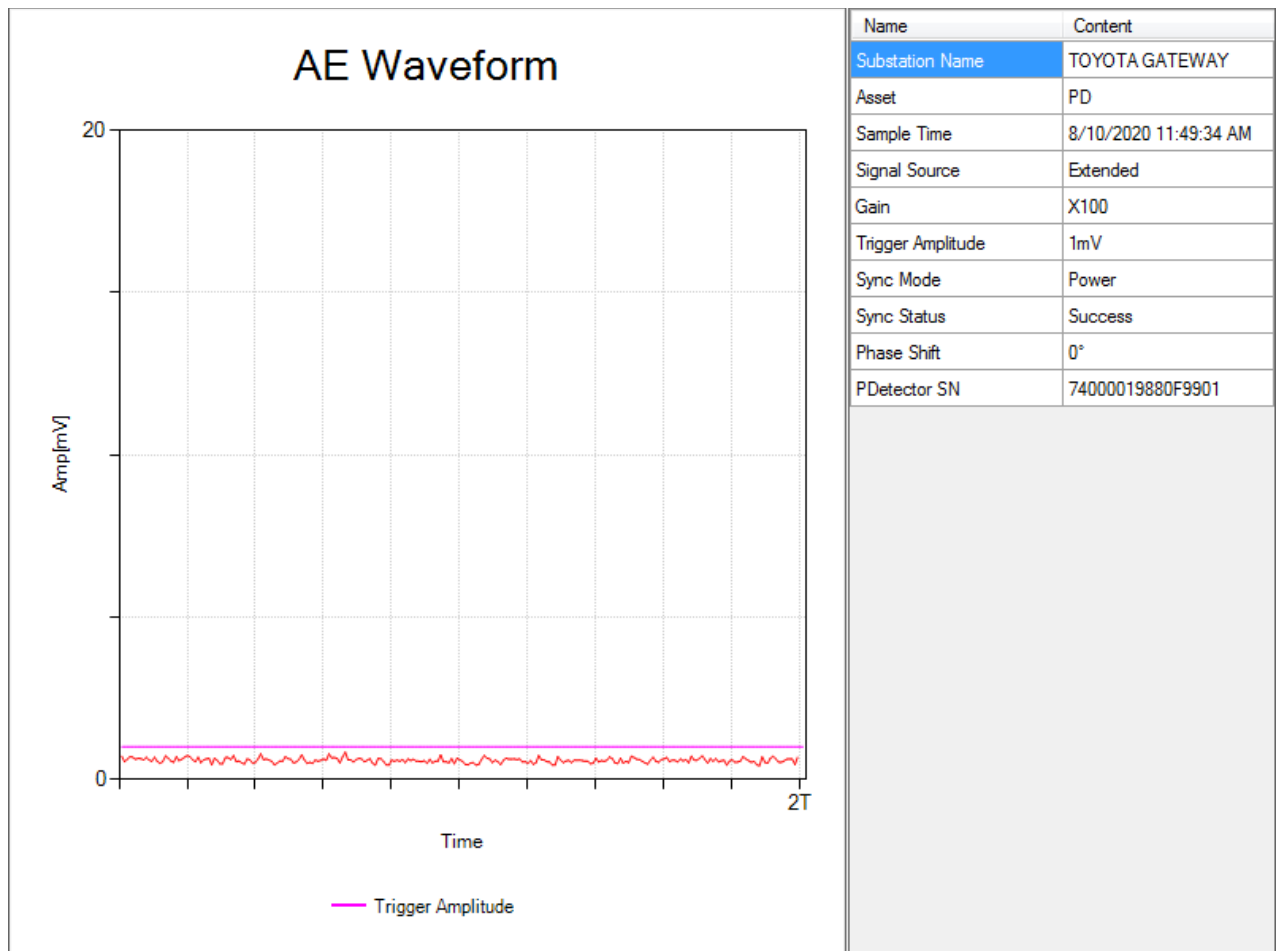


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	NO.1 TR.SEC FRONT PANEL
VOLTAGE LEVEL	22 KV

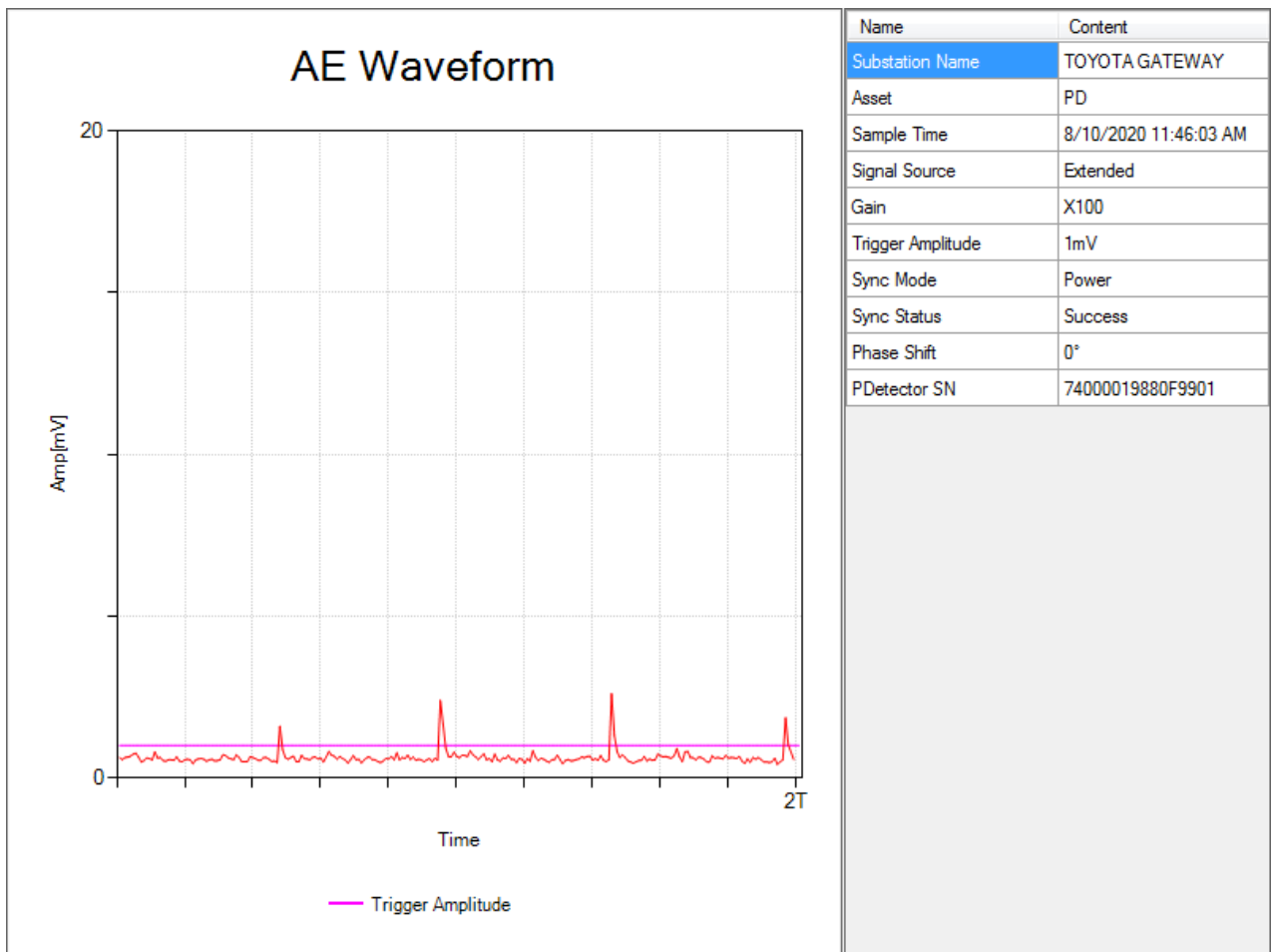


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	1-1 FEEDER (BACK PANEL)
VOLTAGE LEVEL	22 KV

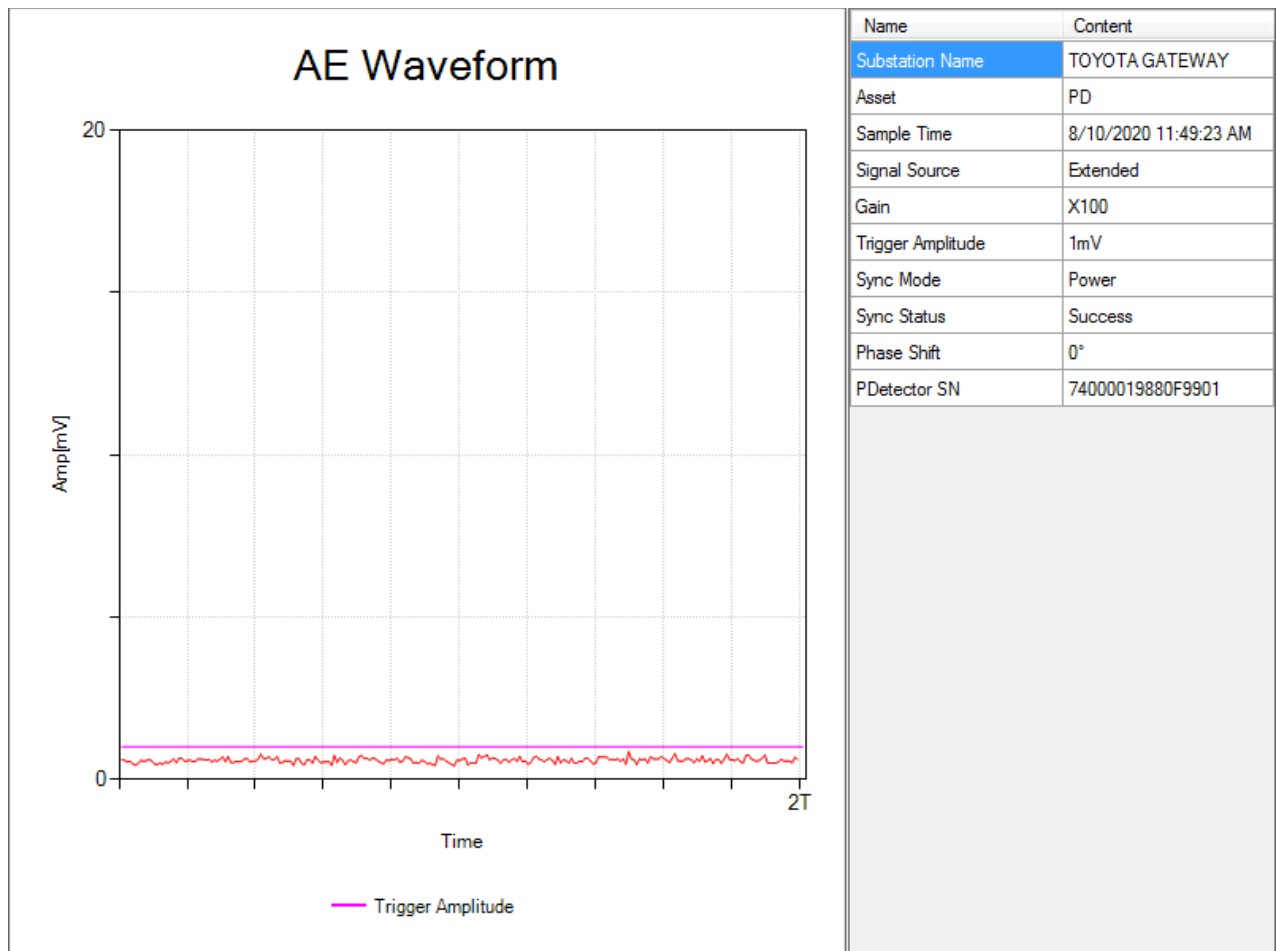


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	1-1 FEEDER FRONT PANEL
VOLTAGE LEVEL	22 KV

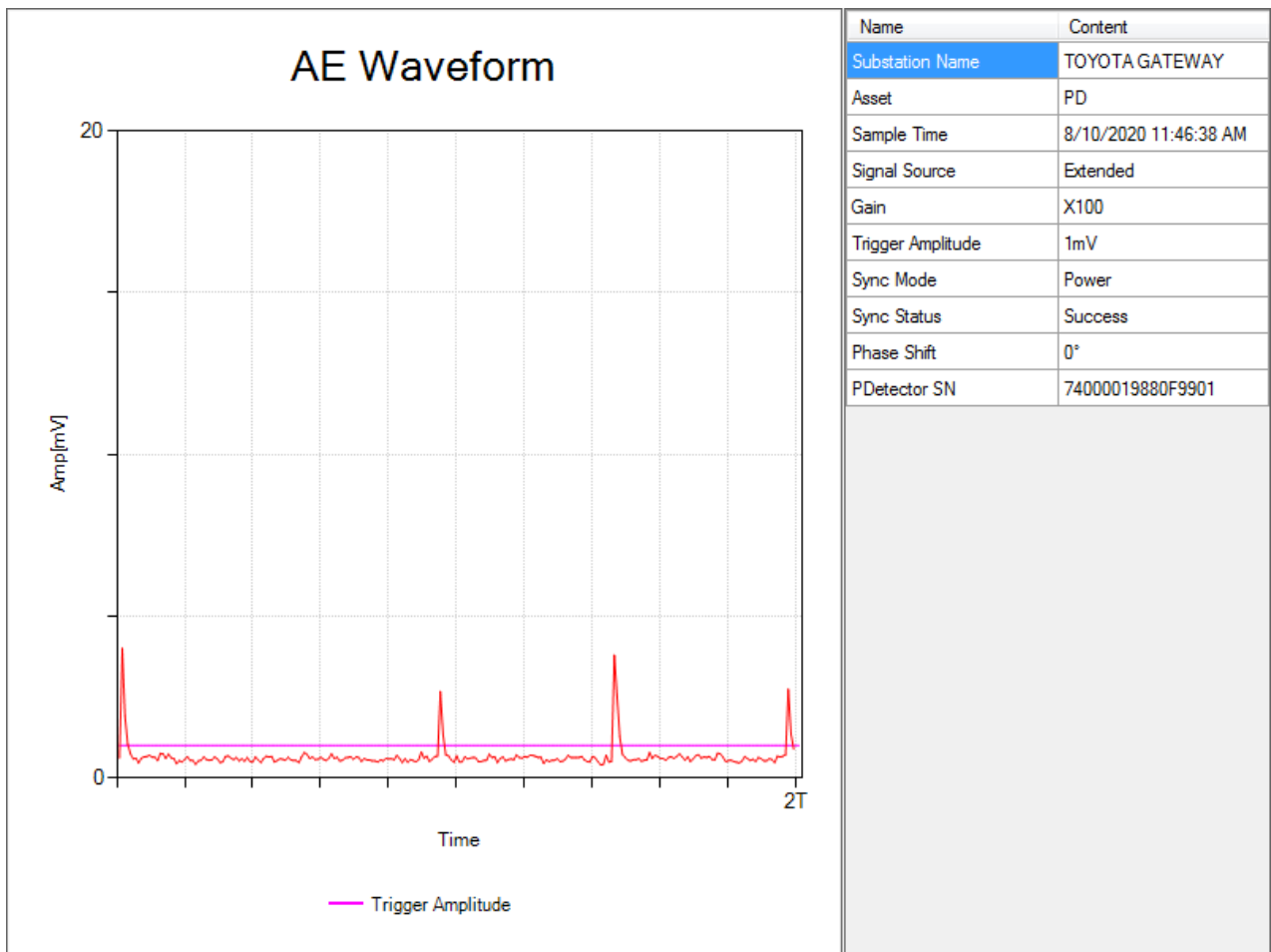


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	1-2 FEEDER (BACK PANEL)
VOLTAGE LEVEL	22 KV

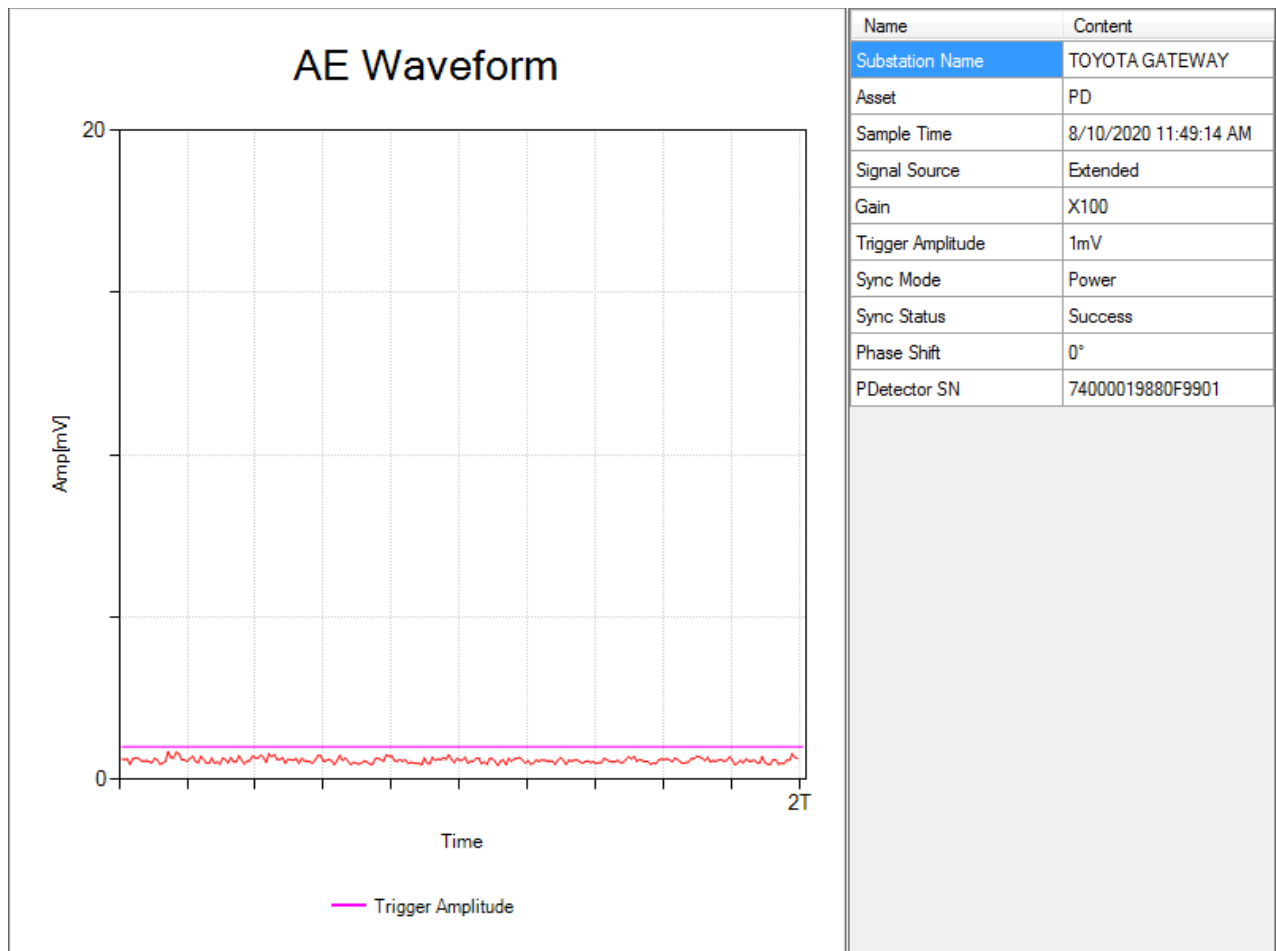


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	1-2 FEEDER (FRONT PANEL)
VOLTAGE LEVEL	22 KV

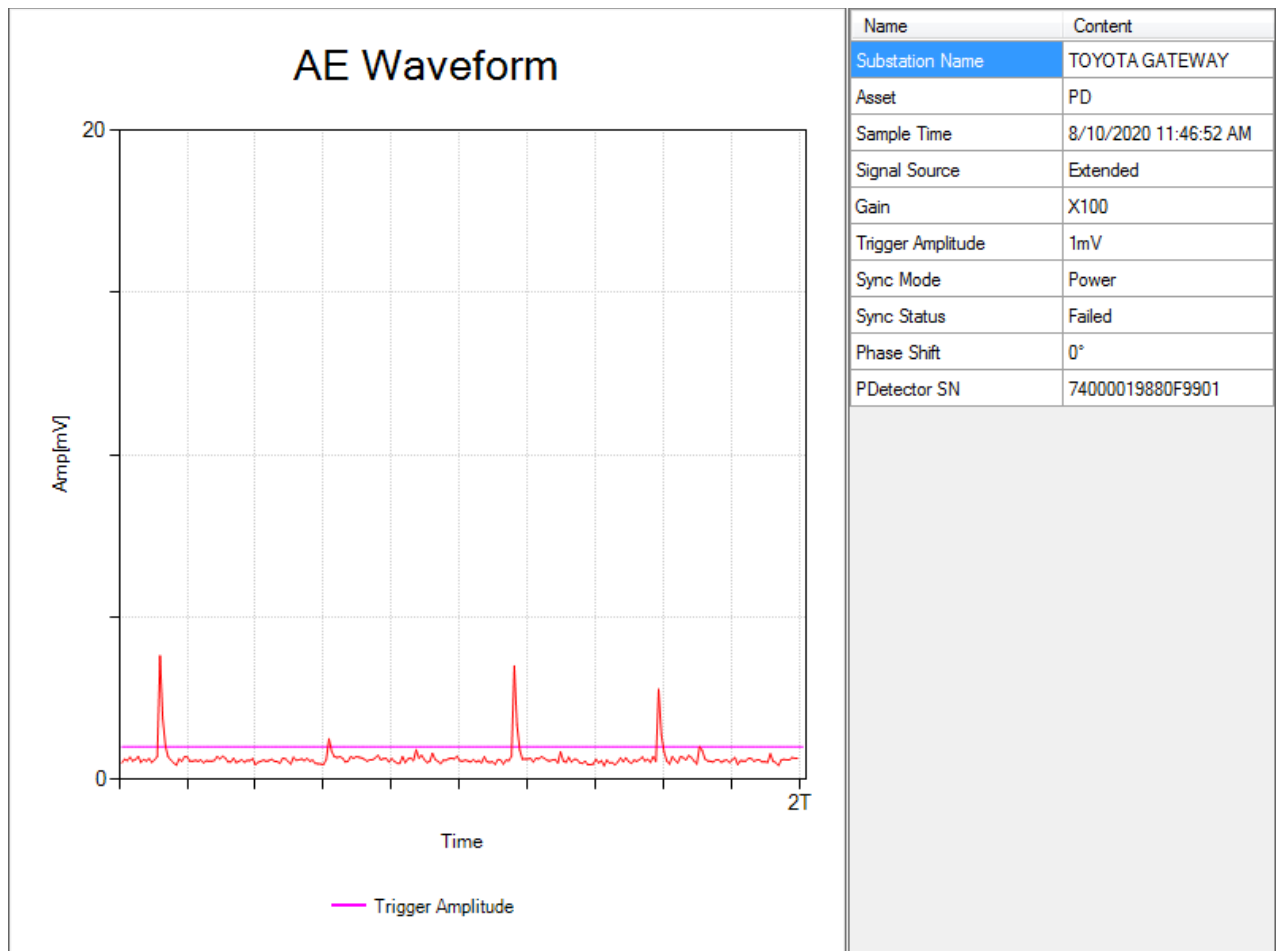


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	1-3 FEEDER (BACK PANEL)
VOLTAGE LEVEL	22 KV

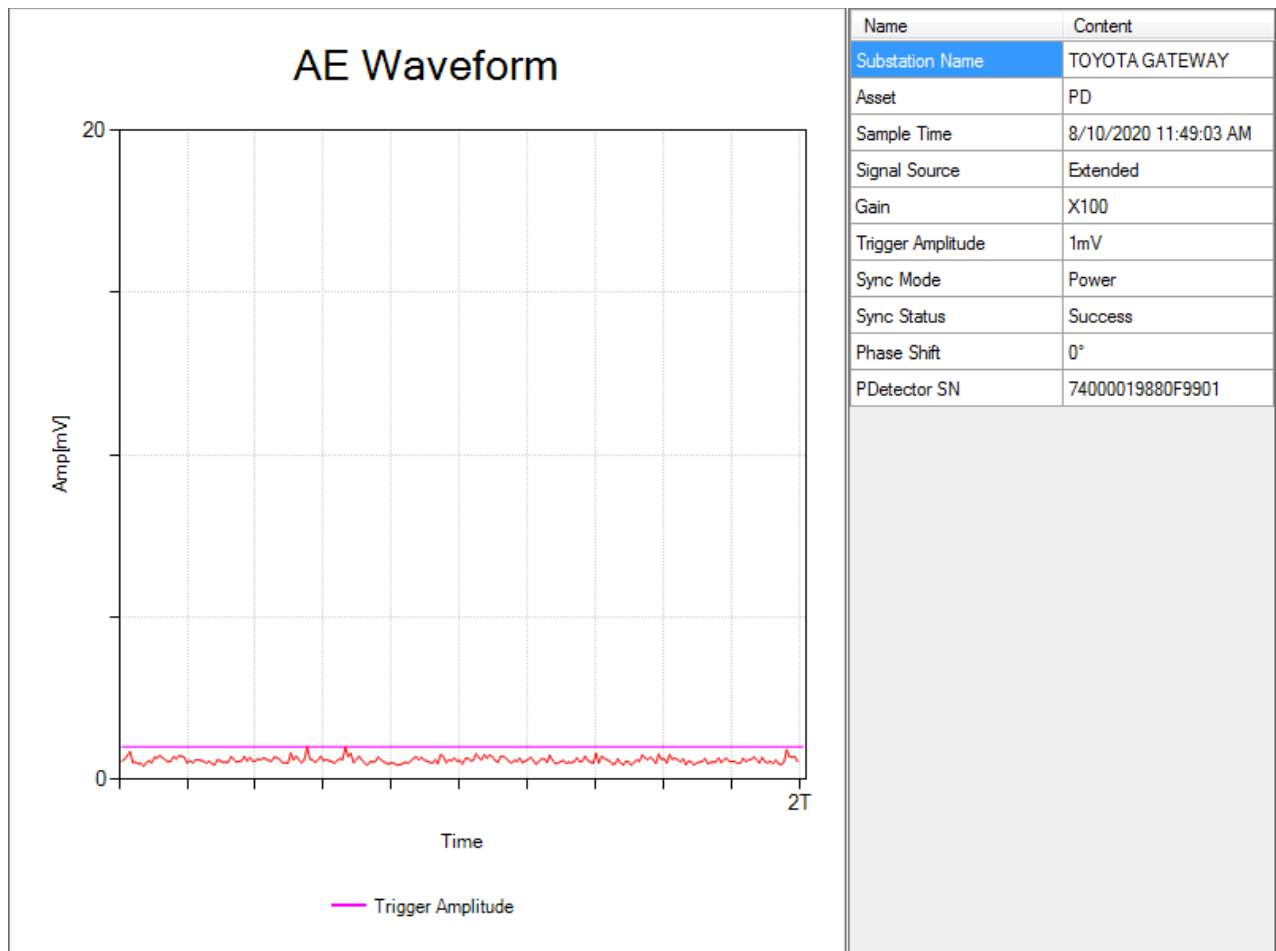


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	1-3 FEEDER (FRONT PANEL)
VOLTAGE LEVEL	22 KV

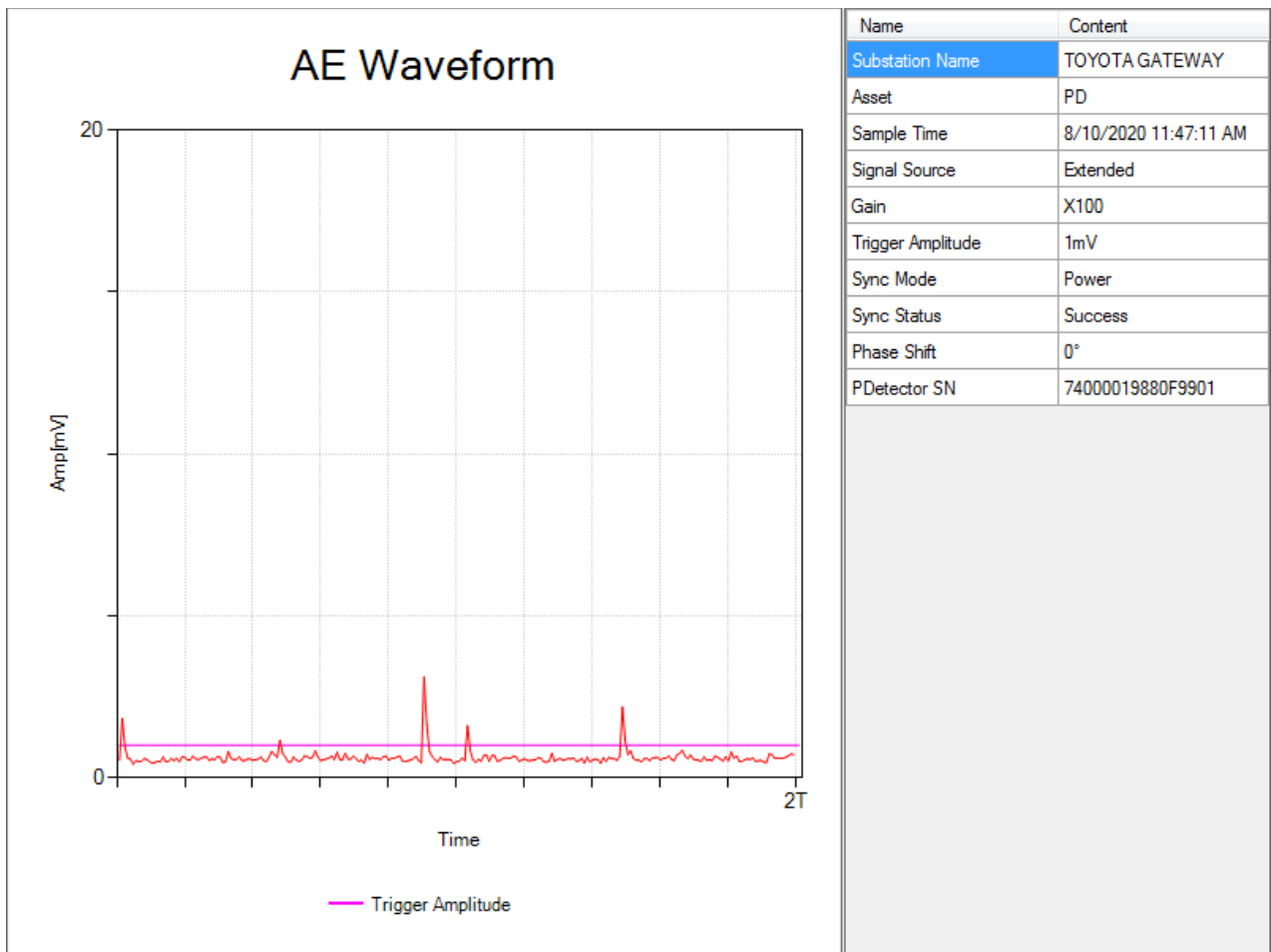


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	1-4 FEEDER (BACK PANEL)
VOLTAGE LEVEL	22 KV

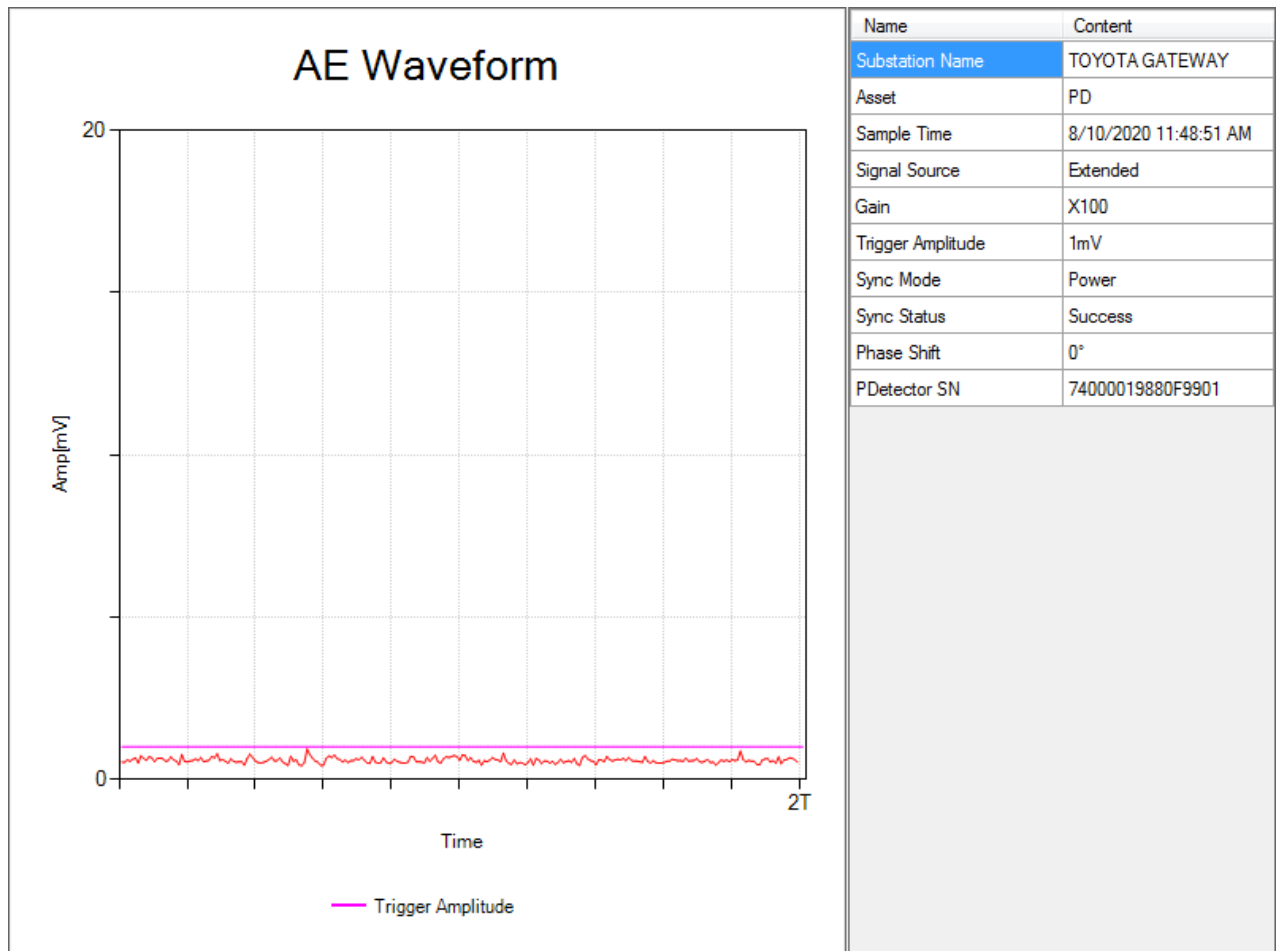


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	1-4 FEEDER (FRONT PANEL)
VOLTAGE LEVEL	22 KV

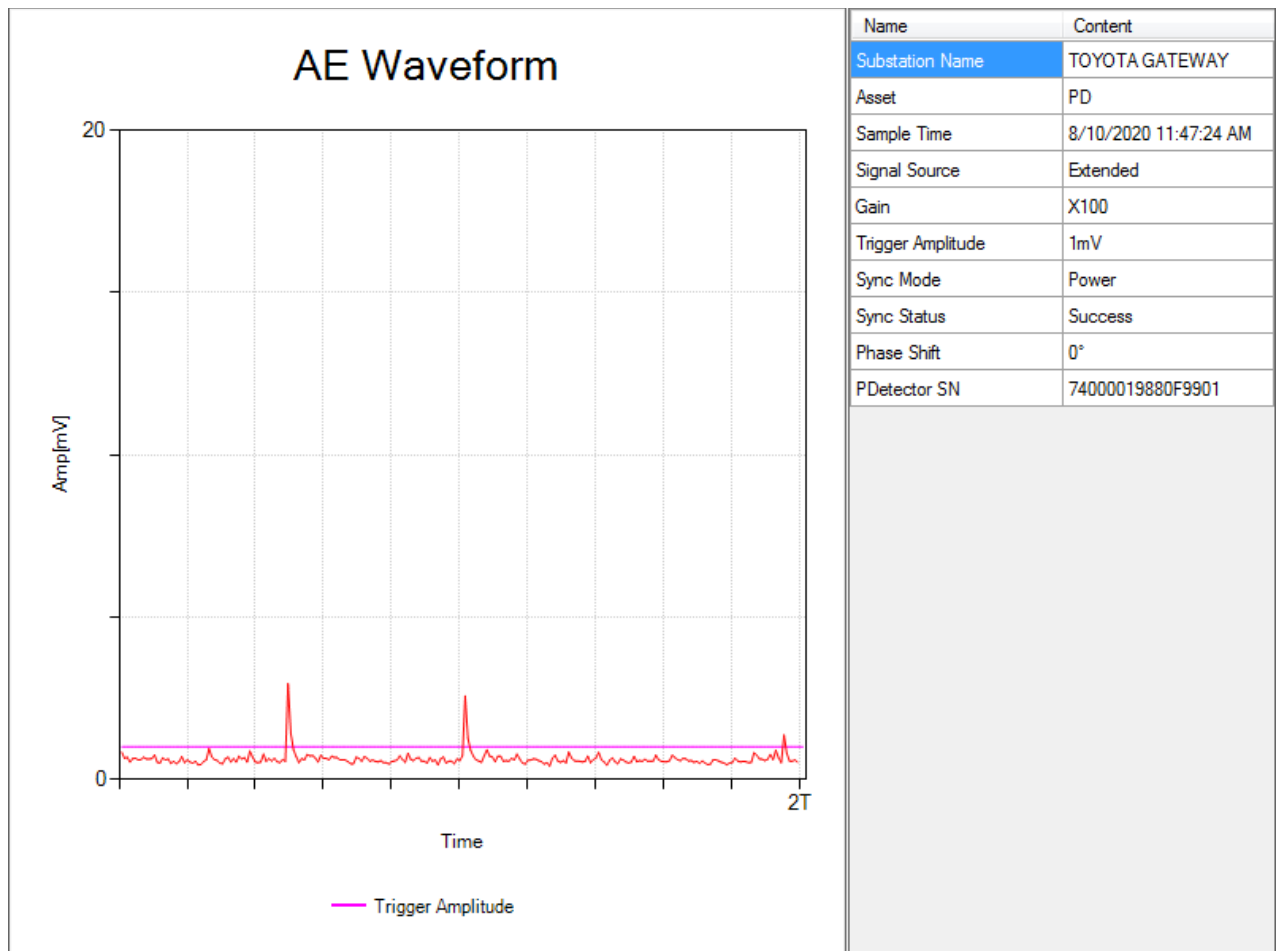


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	CAPACITOR (BACK PANEL)
VOLTAGE LEVEL	22 KV

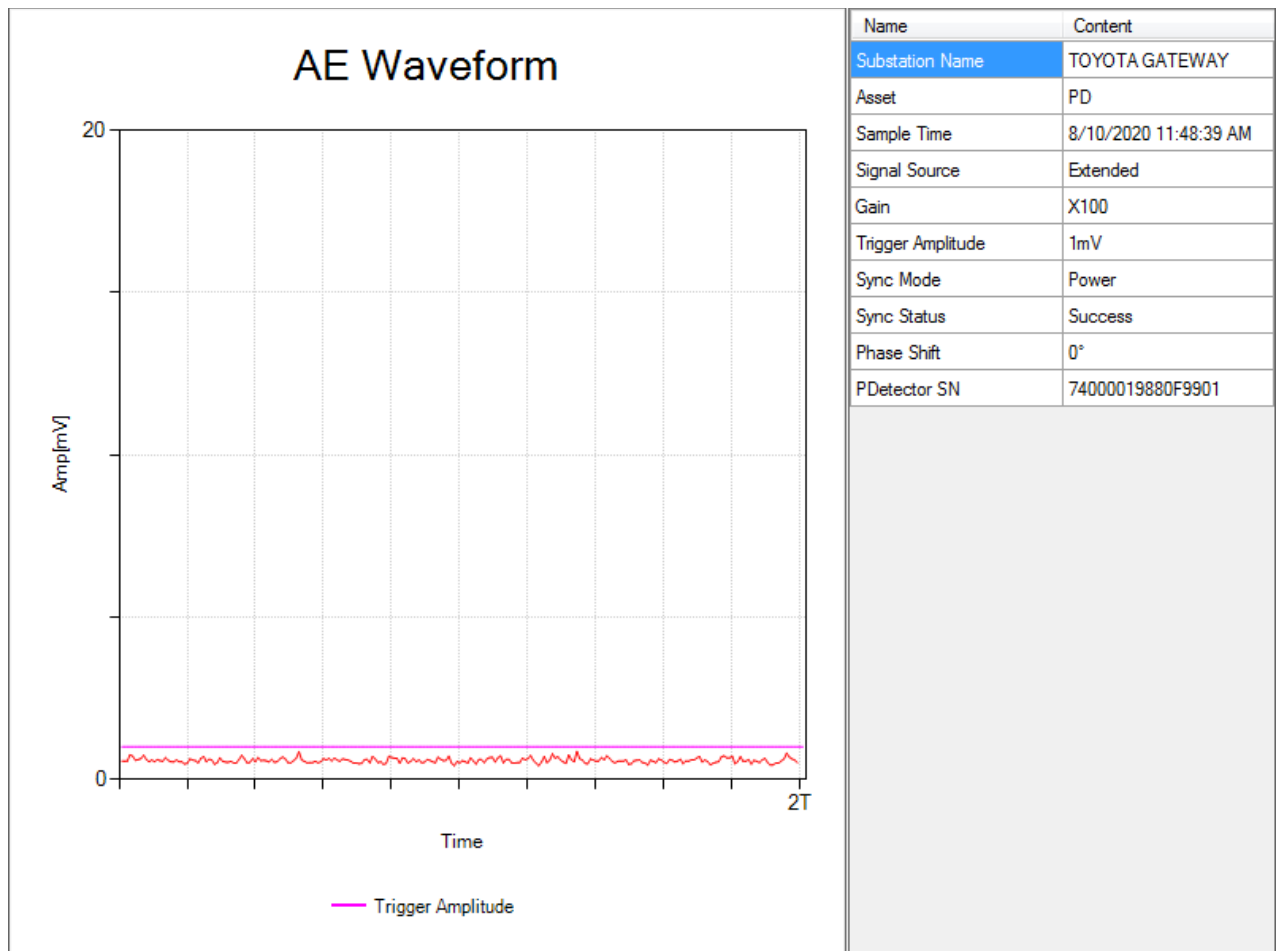


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	CAPACITOR (FRONT PANEL)
VOLTAGE LEVEL	22 KV

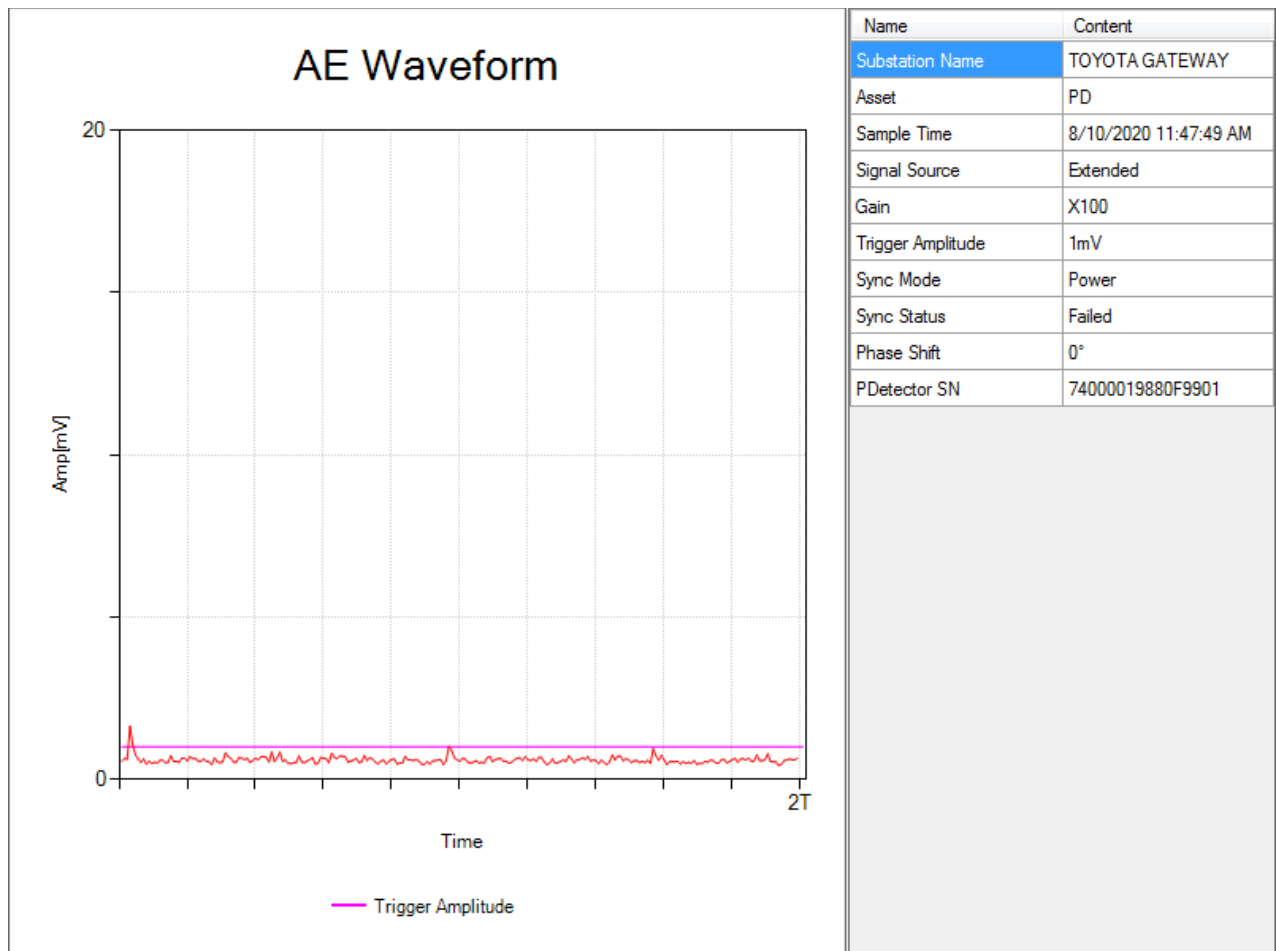


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	STATION TR (BACK PANEL)
VOLTAGE LEVEL	22 KV

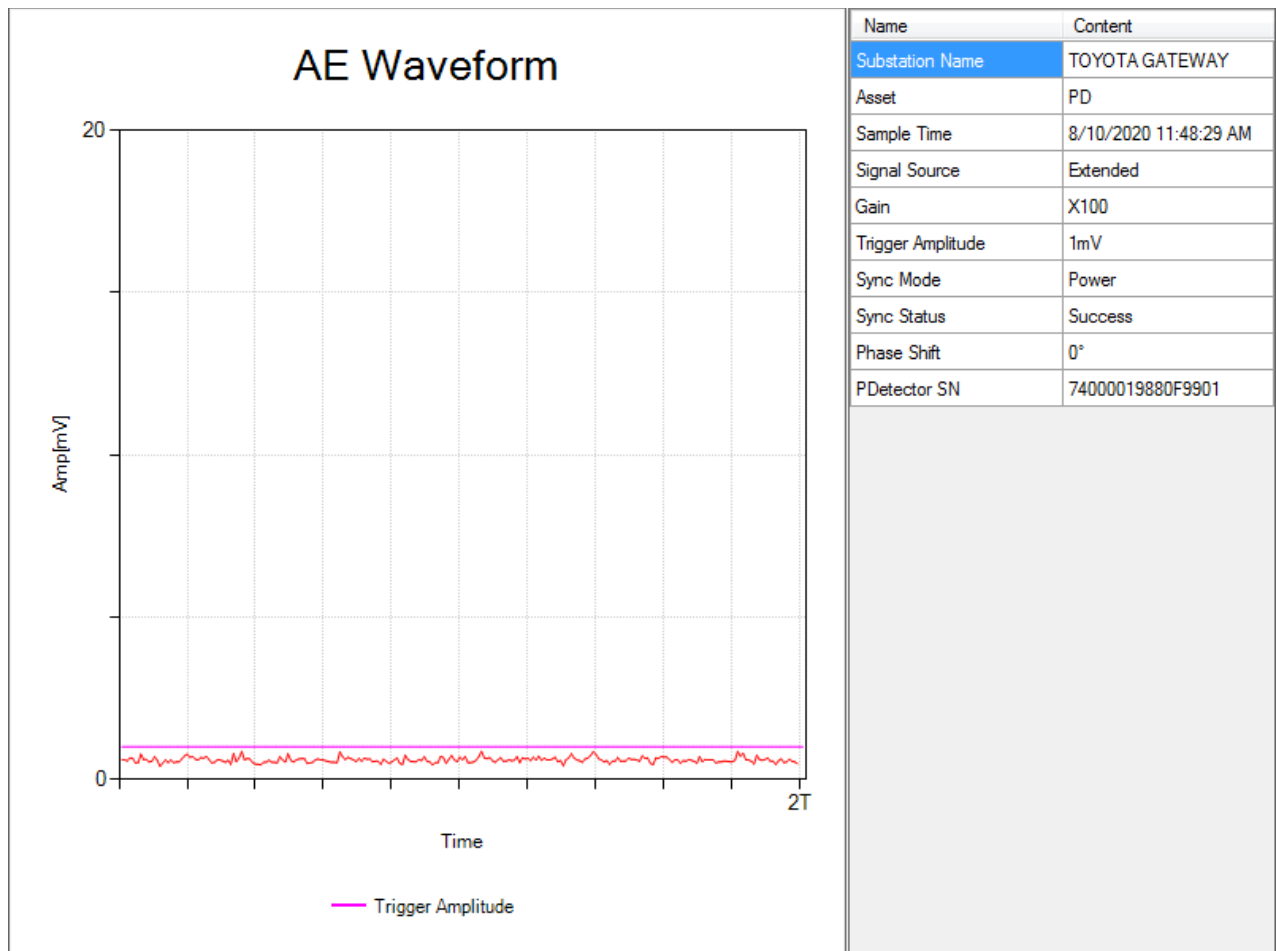


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	STATION TR (FRONT PANEL)
VOLTAGE LEVEL	22 KV

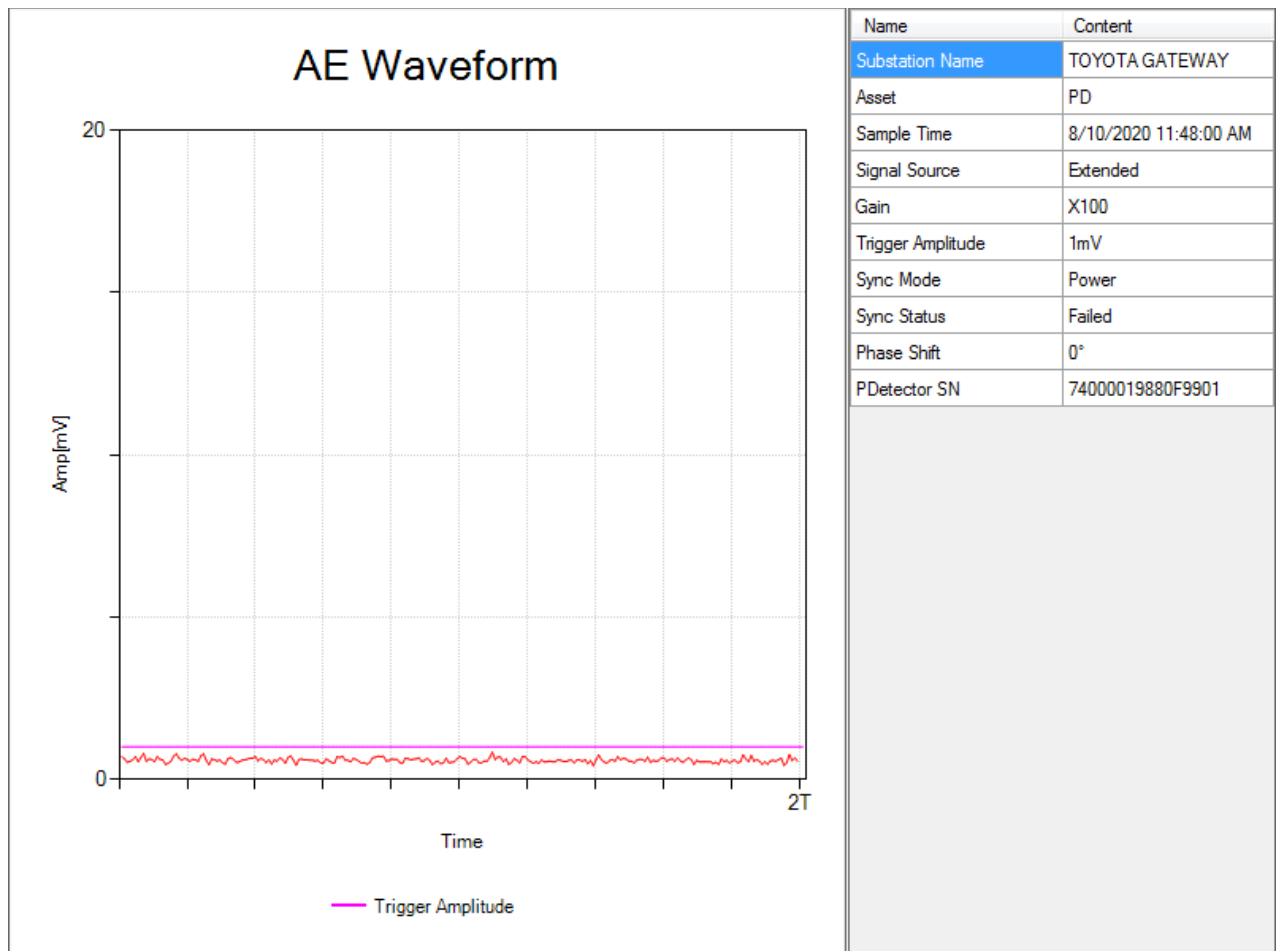


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	NO.2BANK BUS-TLE (BACK PANEL)
VOLTAGE LEVEL	22 KV

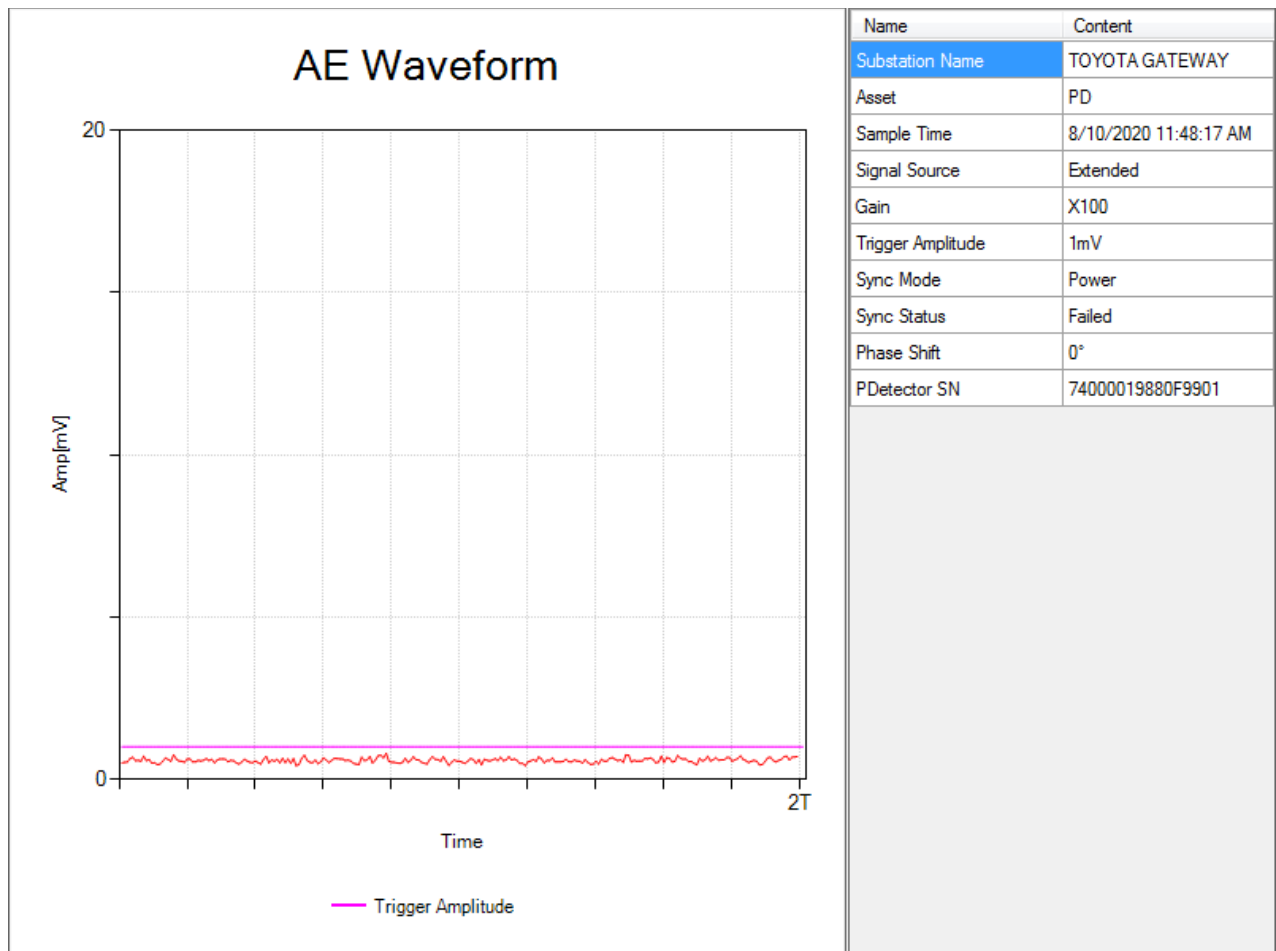


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	NO.2BANK BUS-TLE (FRONT PANEL)
VOLTAGE LEVEL	22 KV

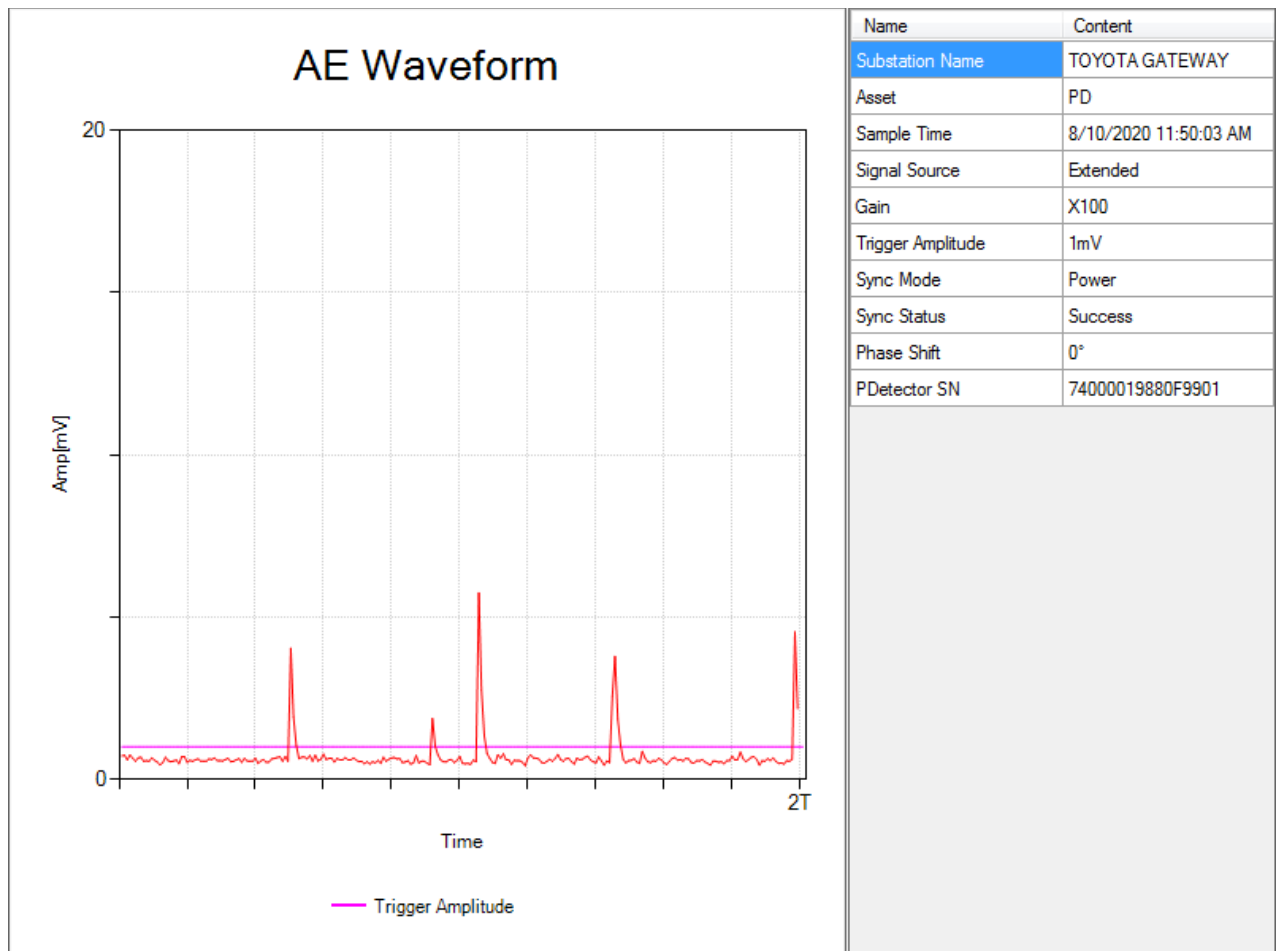


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	22 KV GIS NO.2 BANK BUS VT (BACK PANEL)
VOLTAGE LEVEL	22 KV

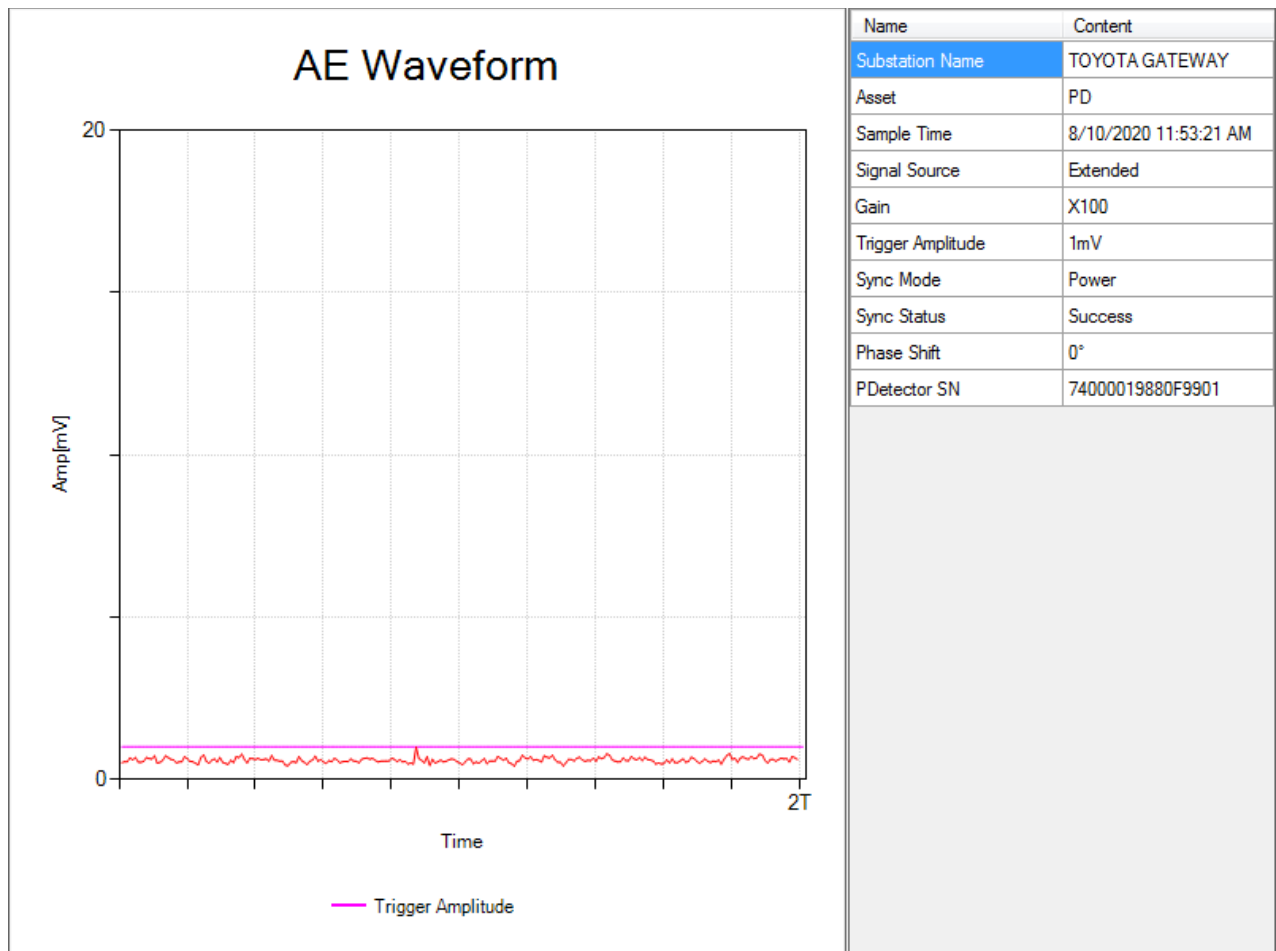


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	The partial discharge should be inspected in the next year.
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	NO2 BANK BUS VT (FRONT PANEL)
VOLTAGE LEVEL	22 KV

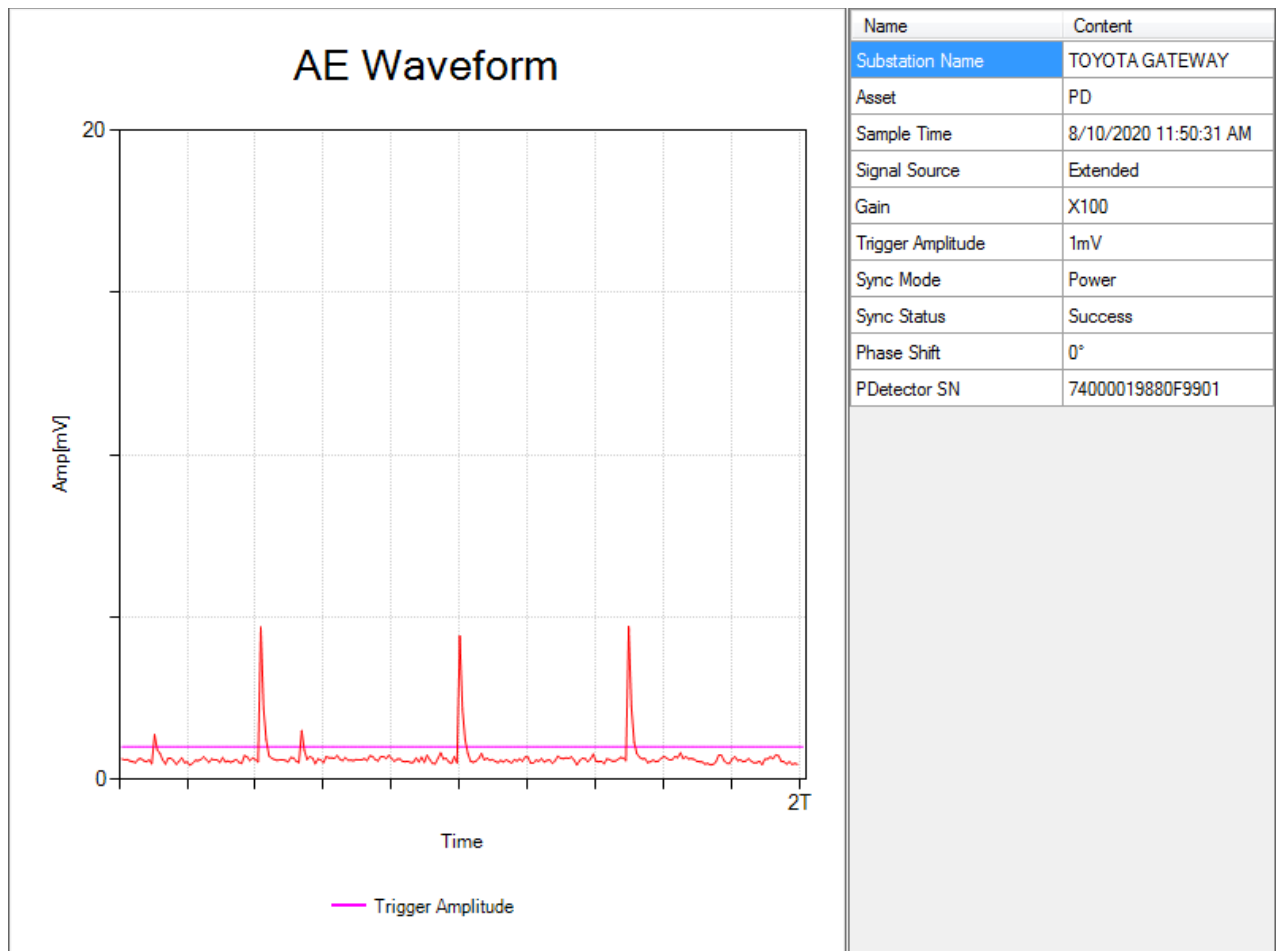


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	TR2 TR SEC (BACK PANEL)
VOLTAGE LEVEL	22 KV

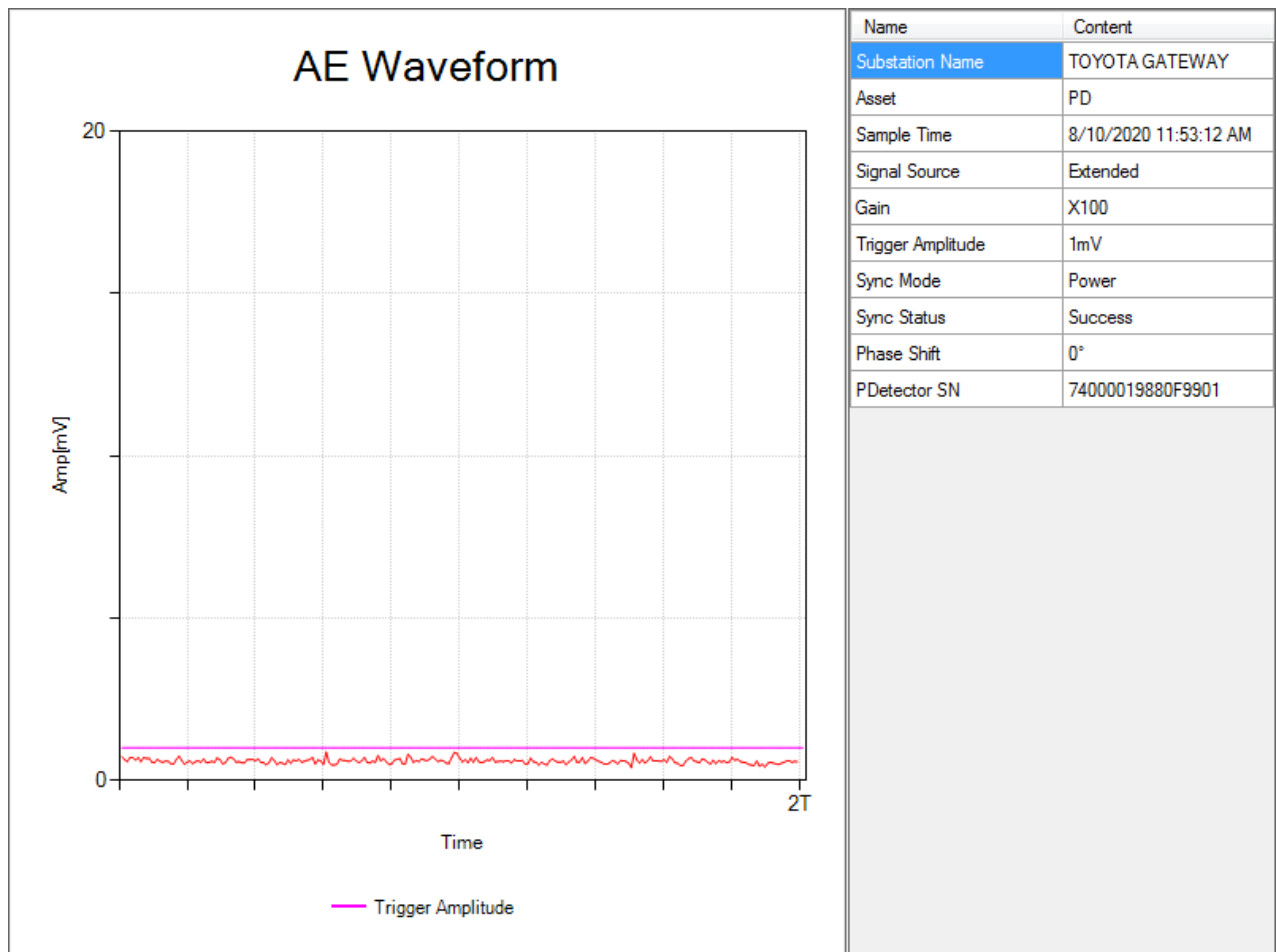


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	The partial discharge should be inspected in the next year.
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	TR2 TR SEC (FRONT PANEL)
VOLTAGE LEVEL	22 KV

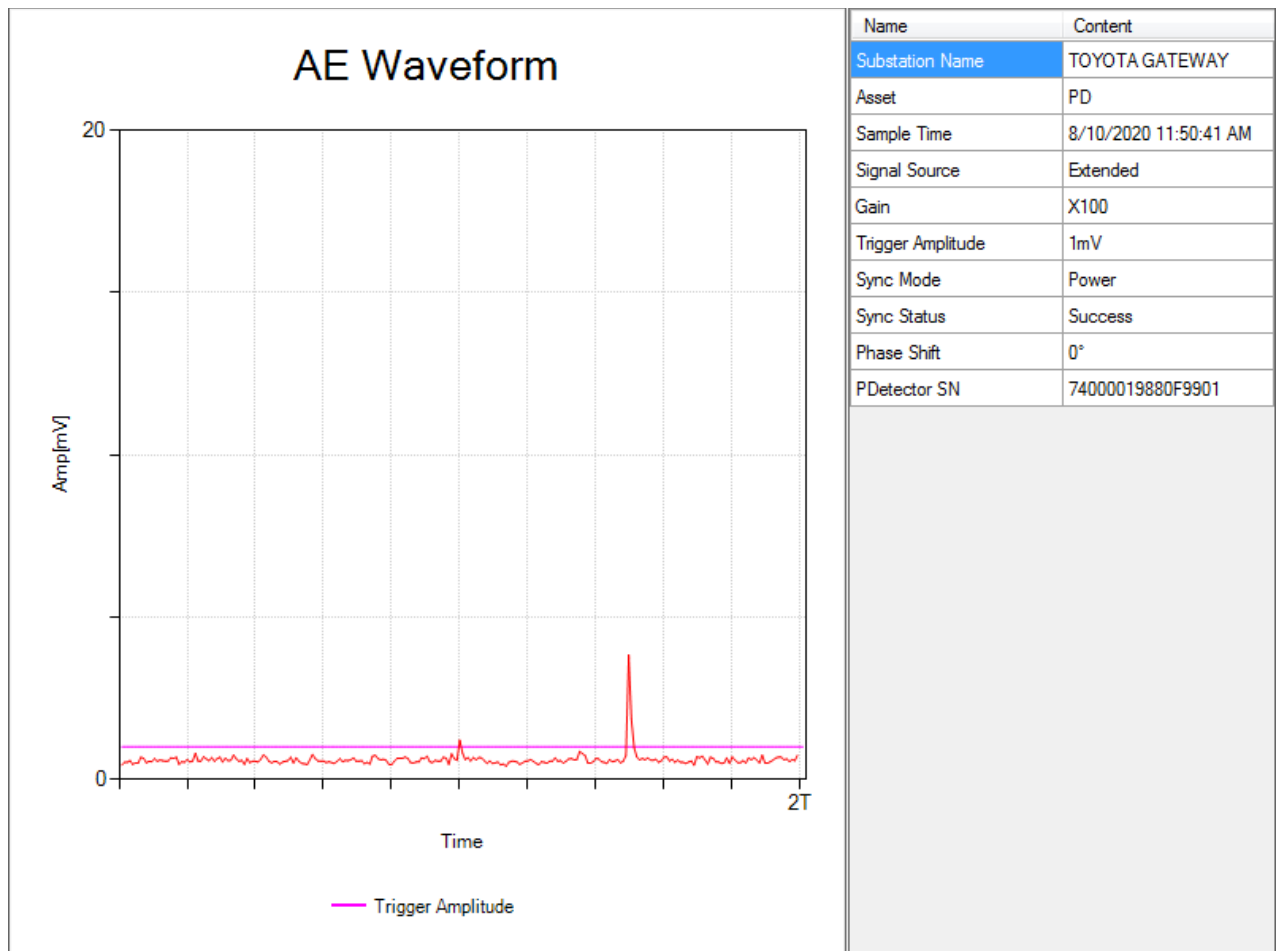


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	2-1 FEEDER (BACK PANEL)
VOLTAGE LEVEL	22 KV

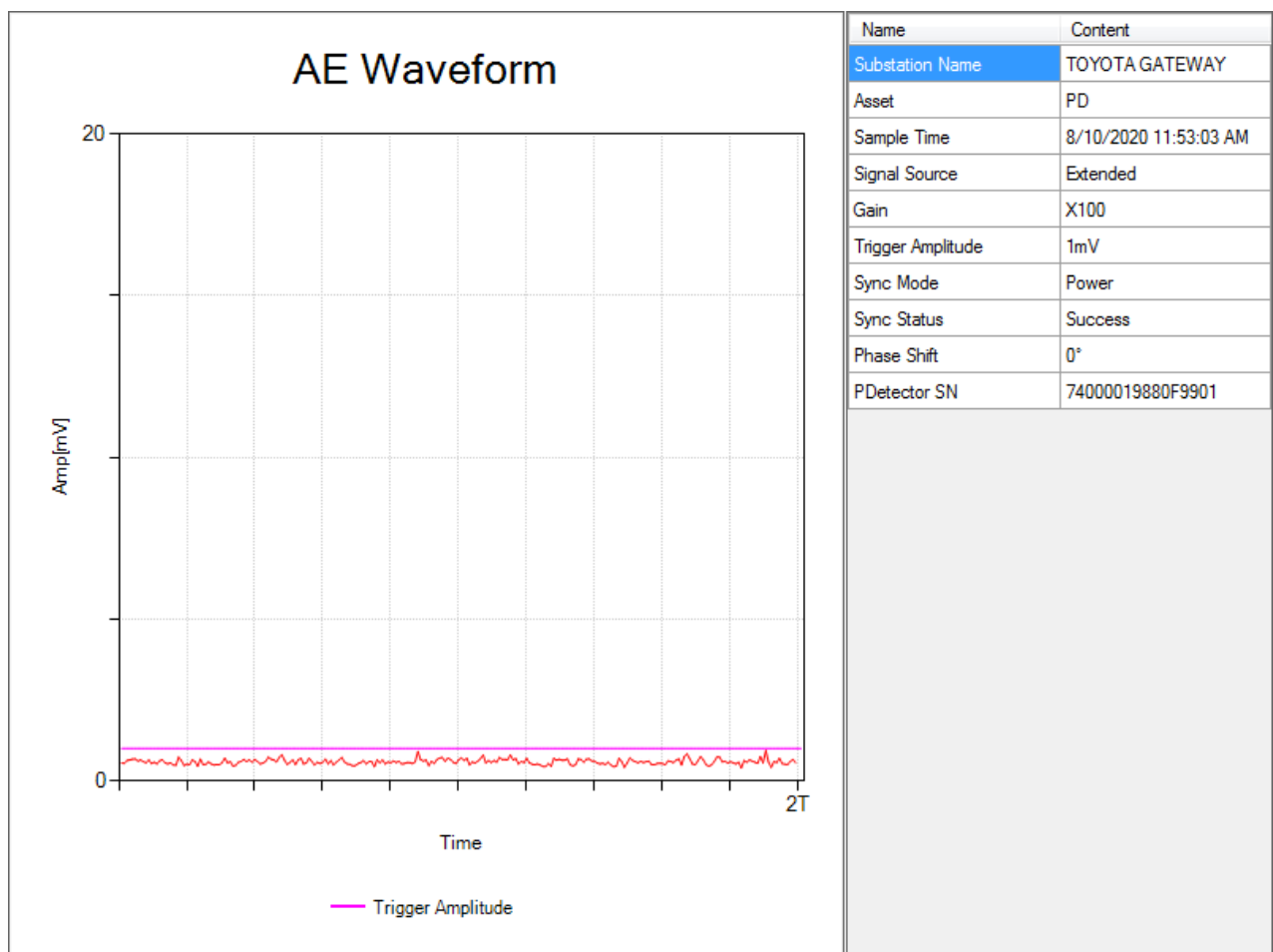


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	2-1 FEEDER (FRONT PANEL)
VOLTAGE LEVEL	22 KV

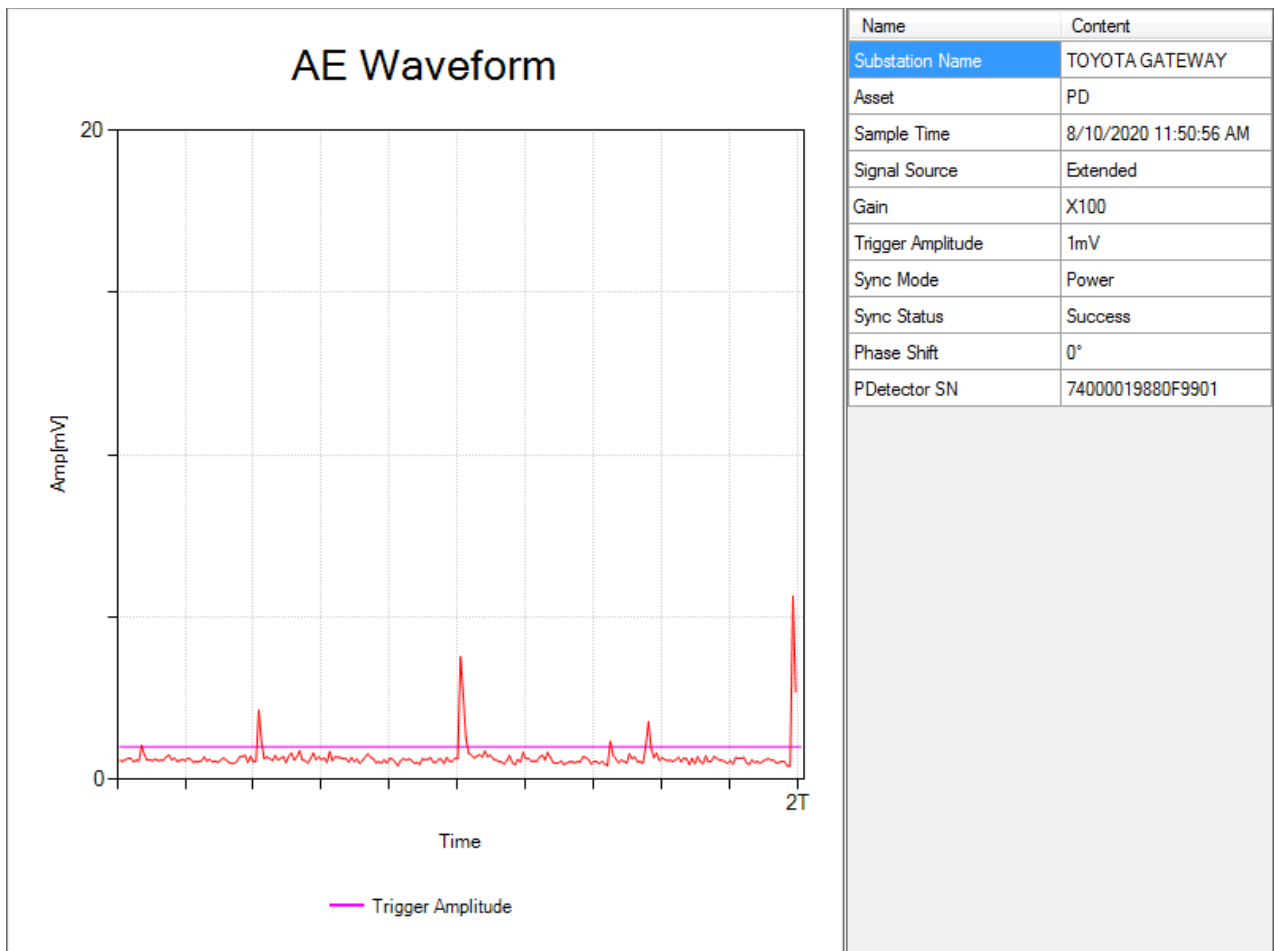


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	2-2 FEEDER (BACK PANEL)
VOLTAGE LEVEL	22 KV

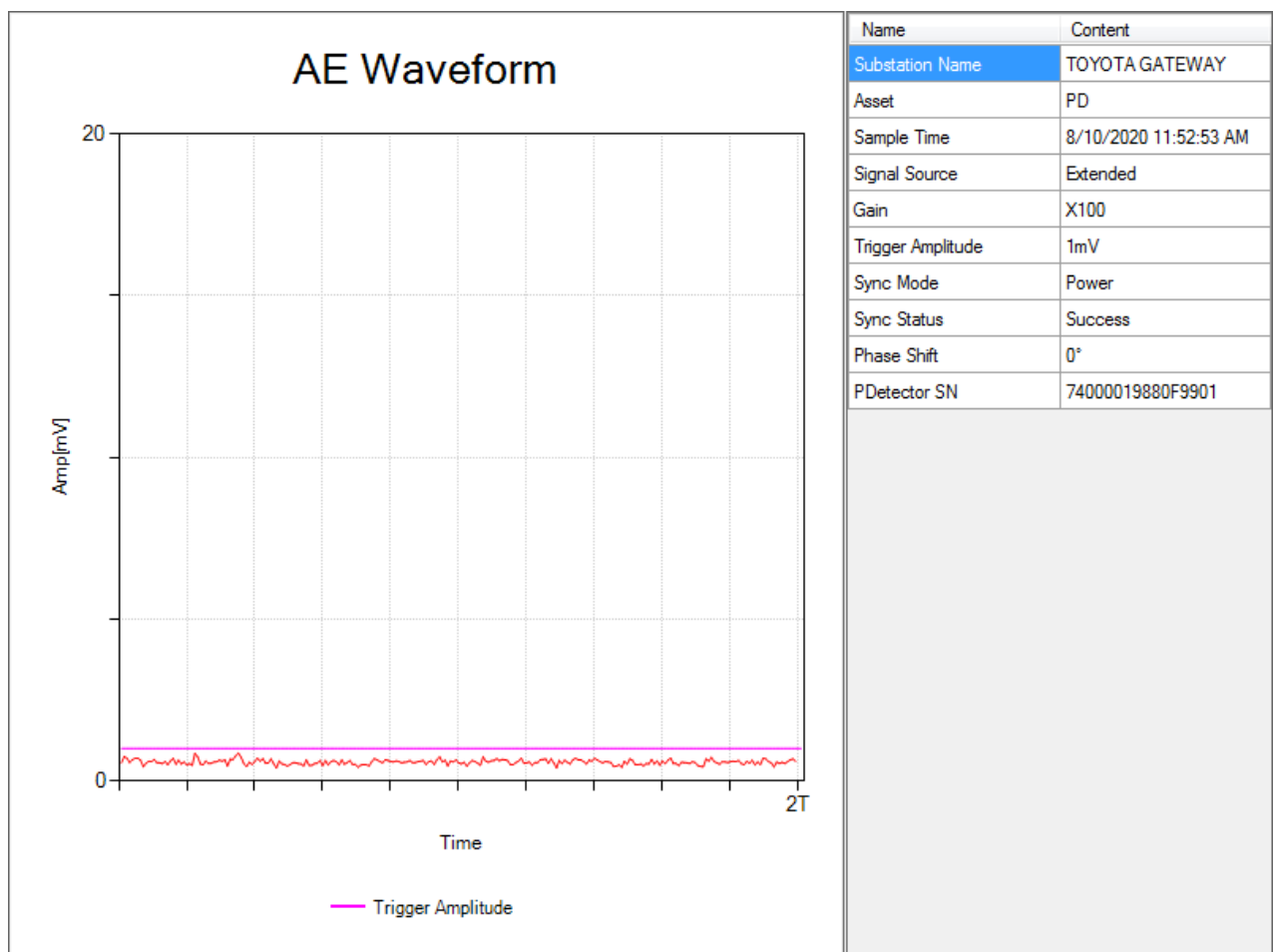


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	The partial discharge should be inspected in the next year.
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	2-2 FEEDER (FRONT PANEL)
VOLTAGE LEVEL	22 KV

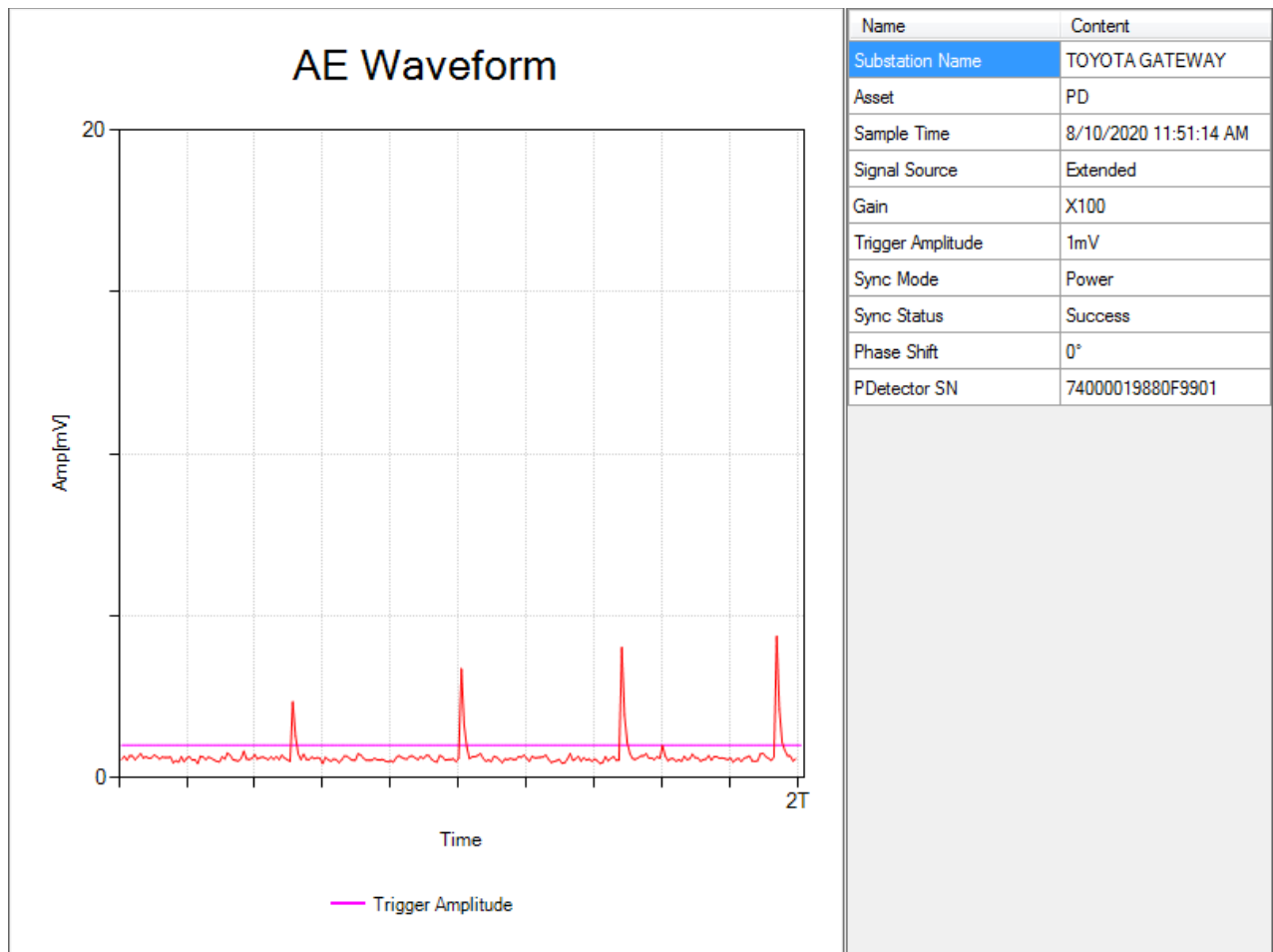


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	2-3 FEEDER (BACK PANEL)
VOLTAGE LEVEL	22 KV

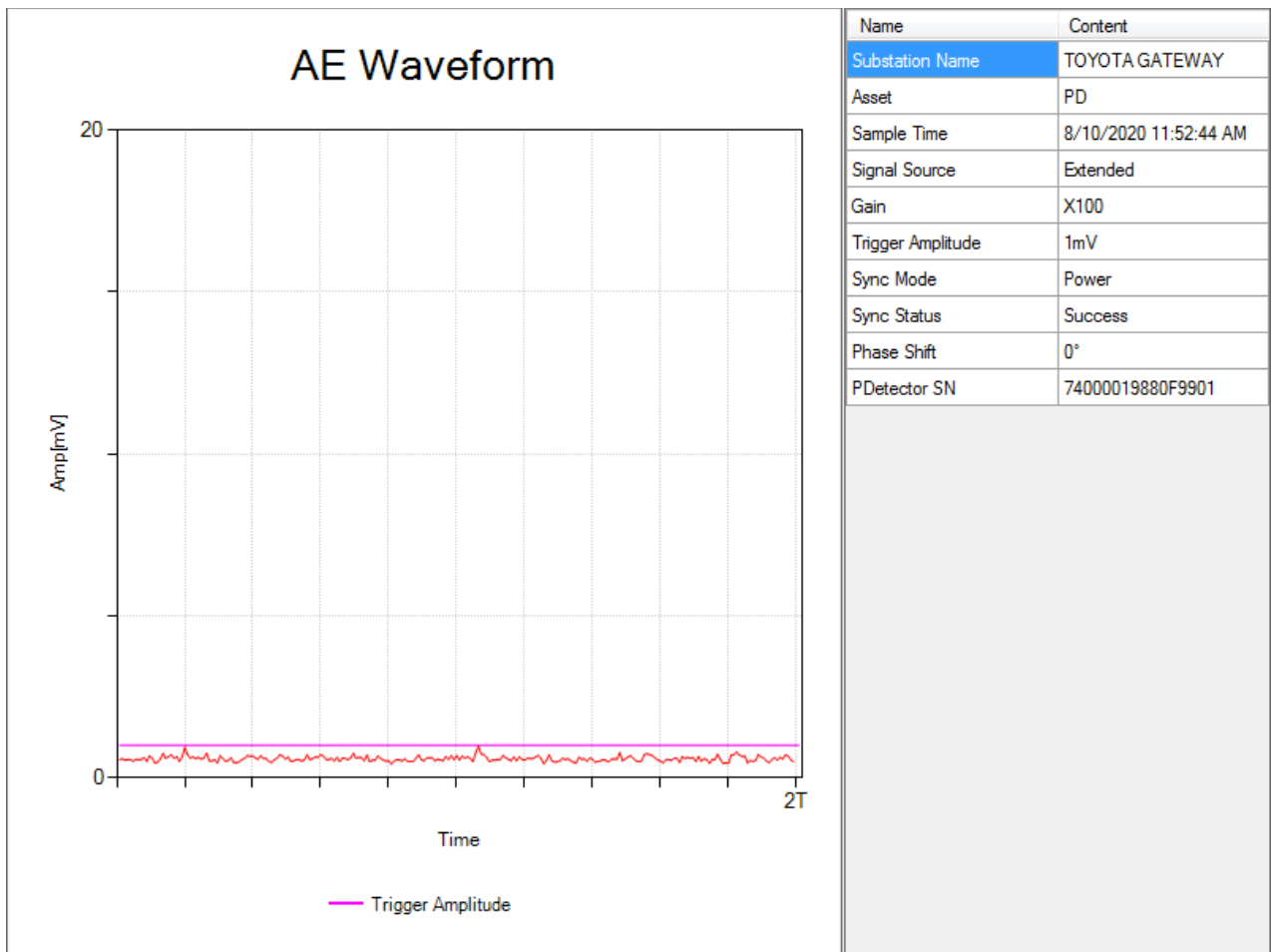


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	The partial discharge should be inspected in the next year.
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	2-3 FEEDER FRONE PANEL
VOLTAGE LEVEL	22 KV

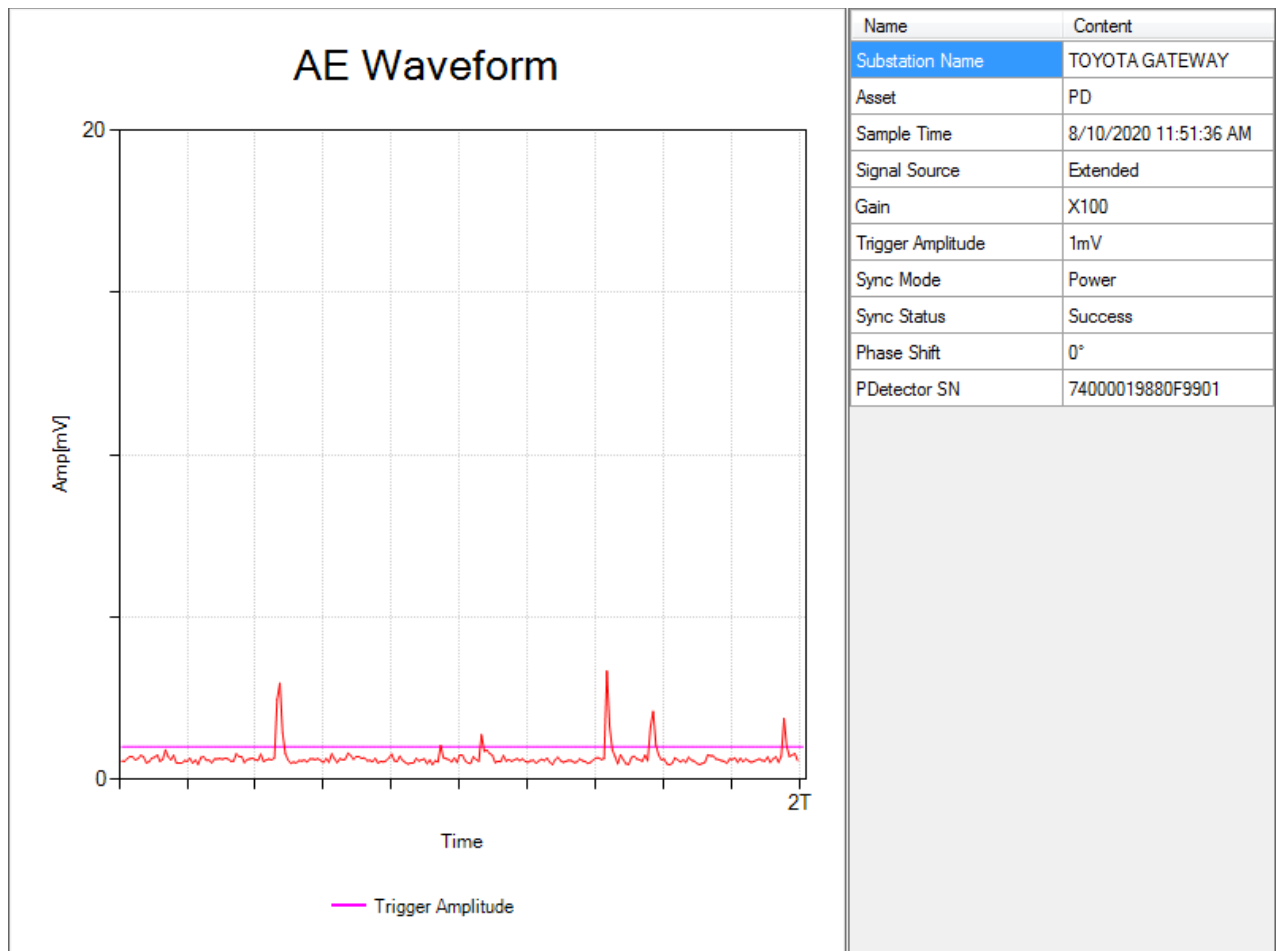


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	2-4 FEEDER (BACK PANEL)
VOLTAGE LEVEL	22 KV

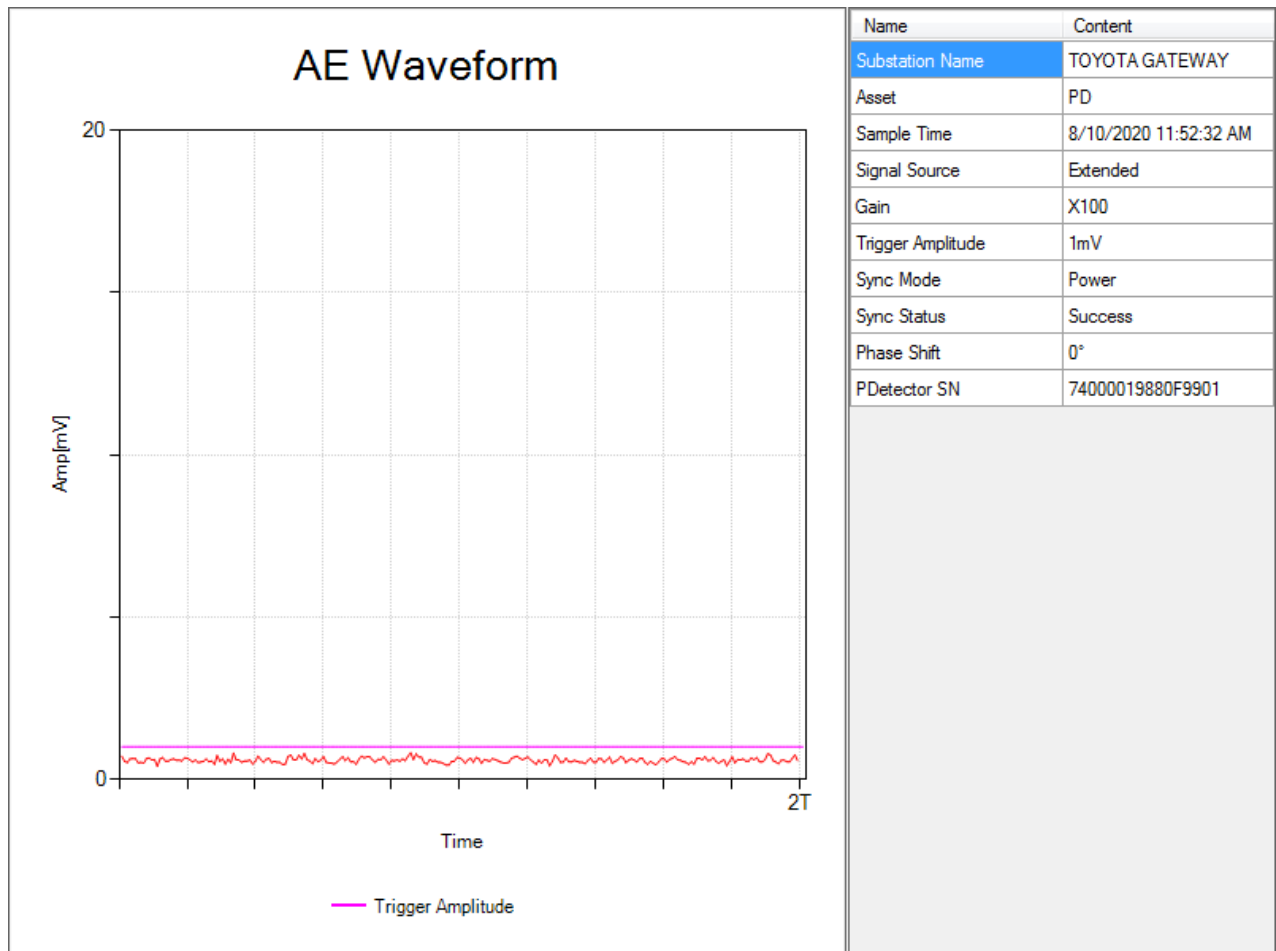


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	The partial discharge should be inspected in the next year.
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	2-4 FEEDER (FRONT PANEL)
VOLTAGE LEVEL	22 KV

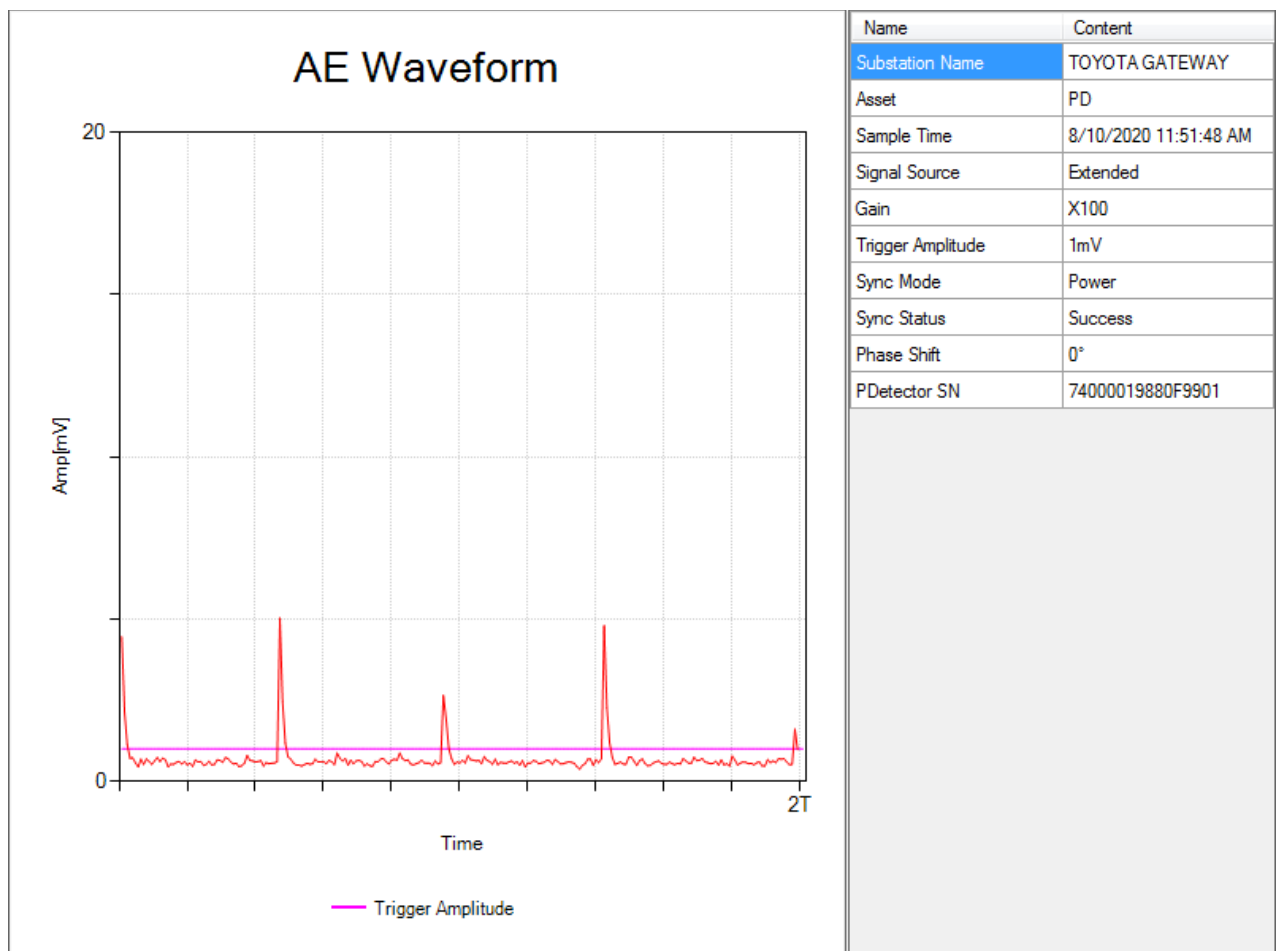


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	CAPACIGOR BACK PANEL NO.2
VOLTAGE LEVEL	22 KV

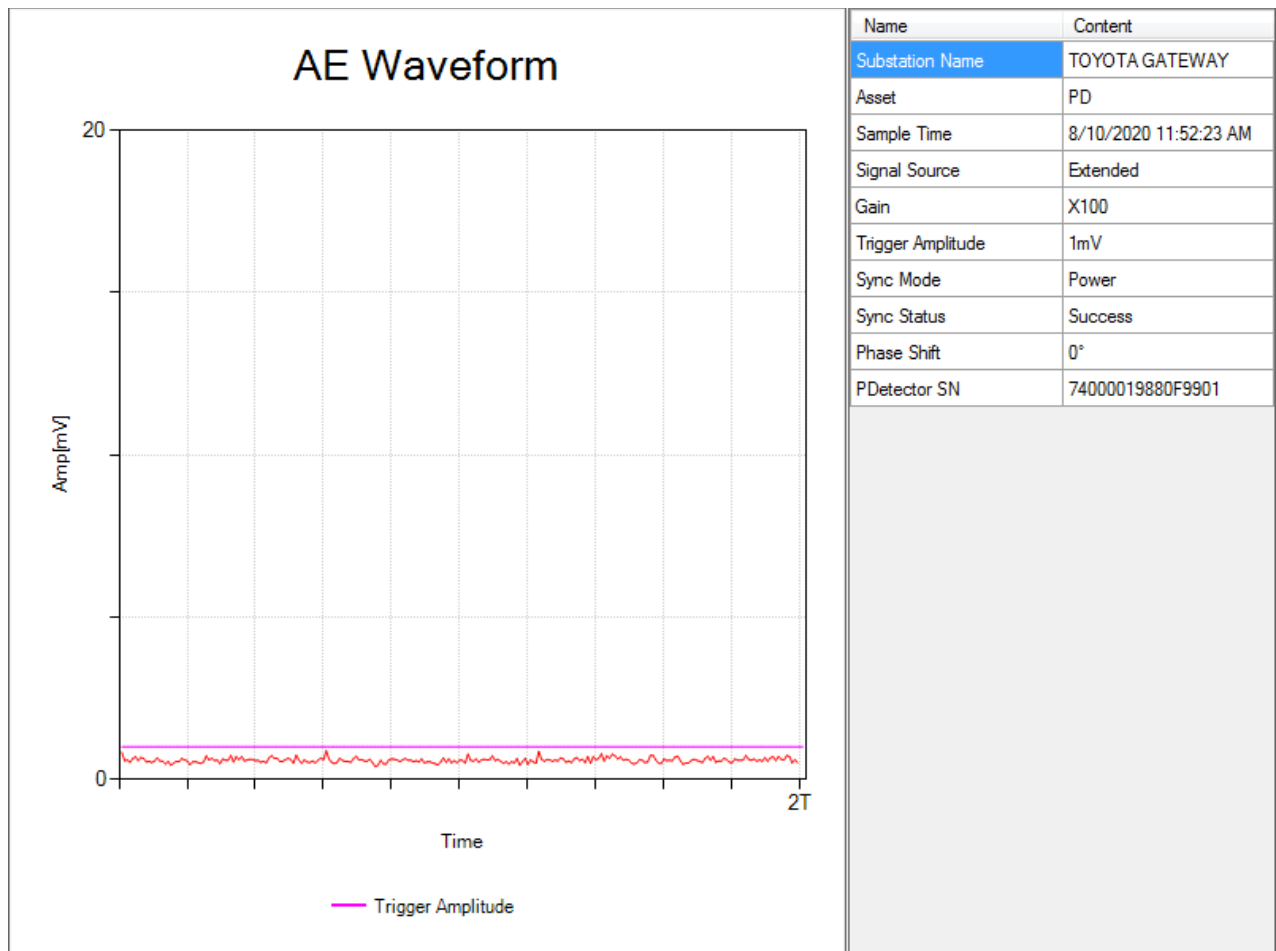


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	The partial discharge should be inspected in the next year.
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	CAPACIGOR FRONT PANEL NO.2
VOLTAGE LEVEL	22 KV

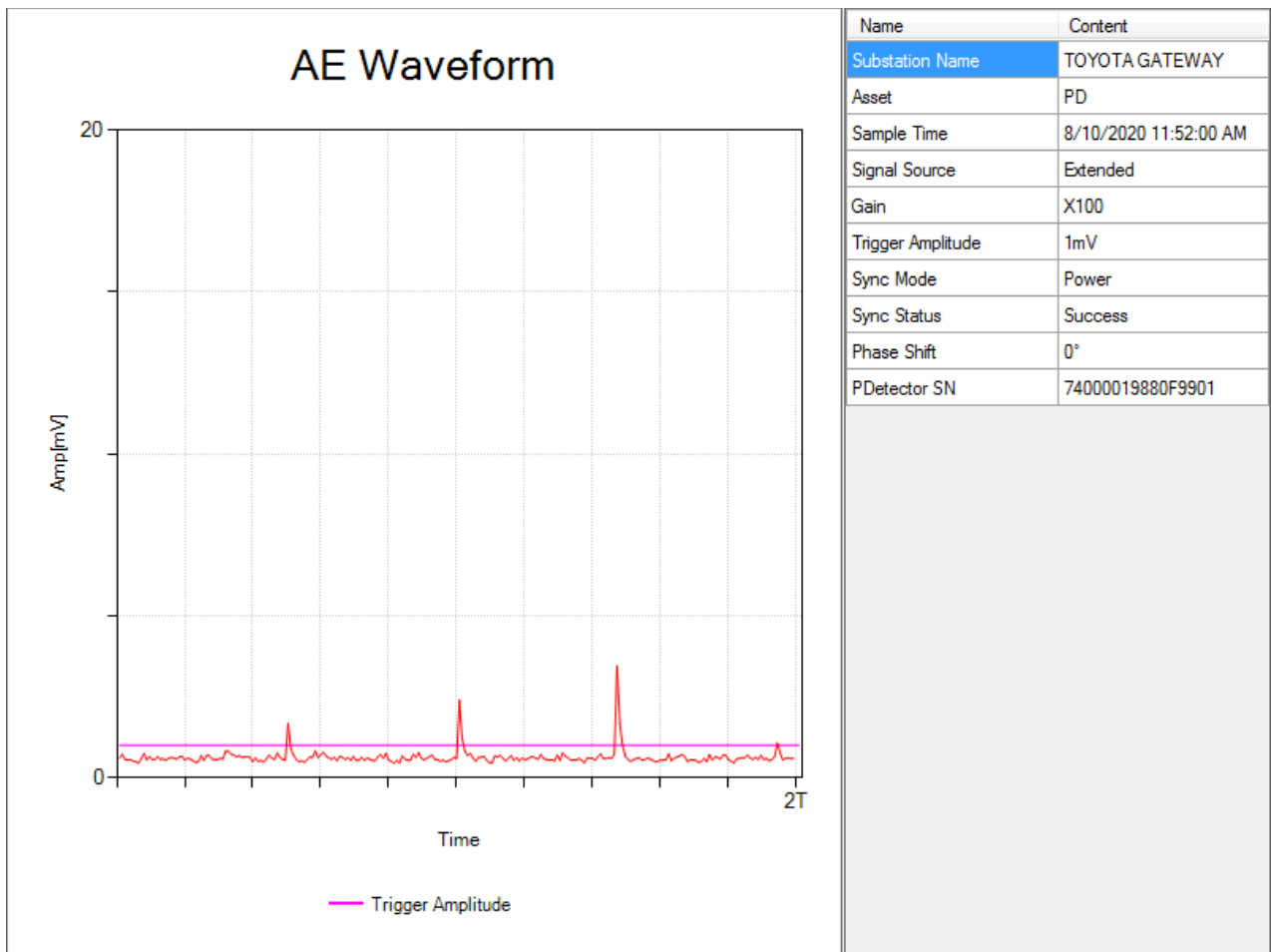


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	NO.2NO.2BANK BUS-TIE (BACK PANEL)
VOLTAGE LEVEL	22 KV

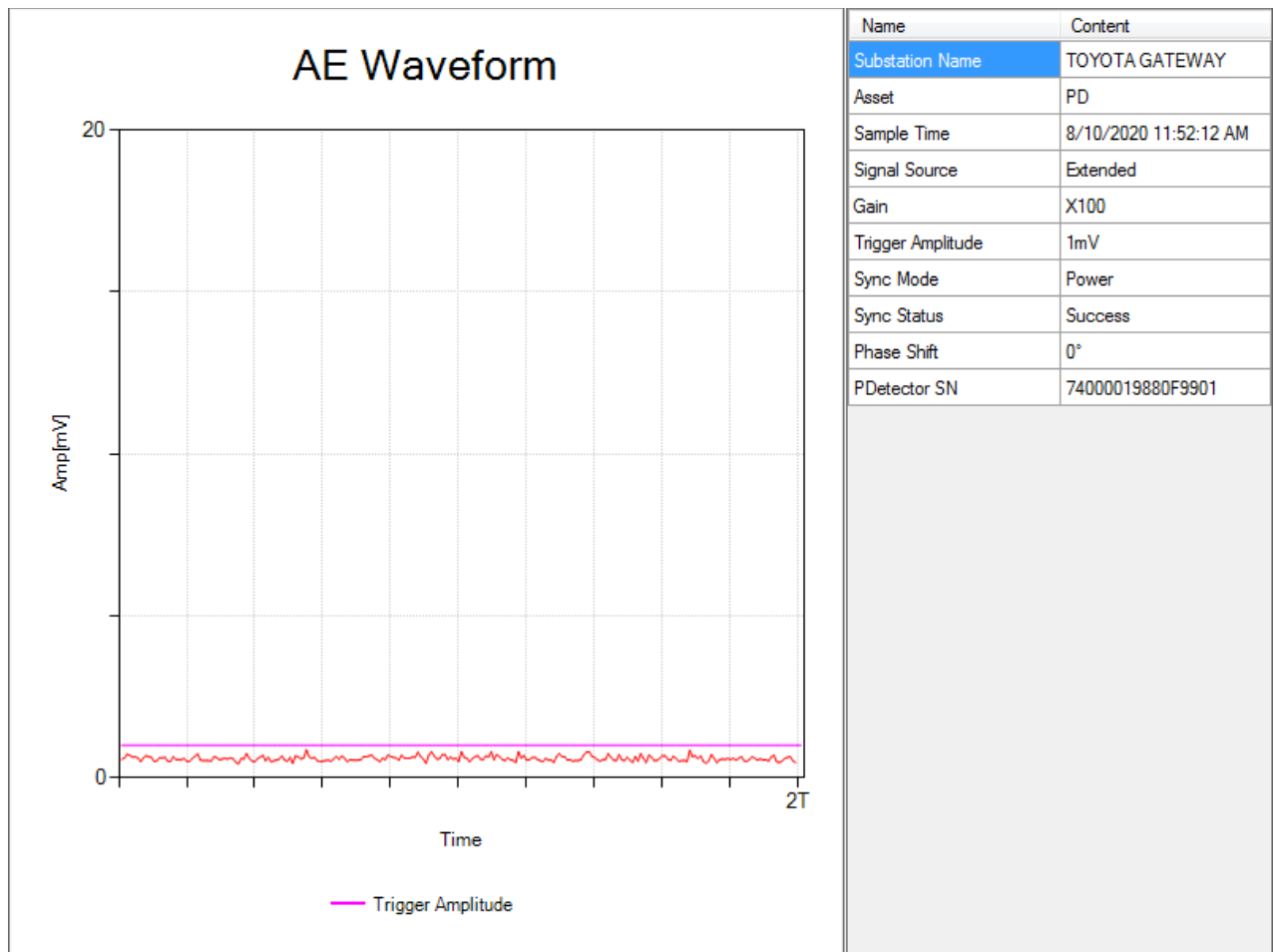


COMMENT	Partial discharge (PD) was found.
EVALUATION	Warning
SUGGESTION	The partial discharge should be inspected in the next year.
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	NO.2BANK BUS-TIE (FRONT PANEL)
VOLTAGE LEVEL	22 KV

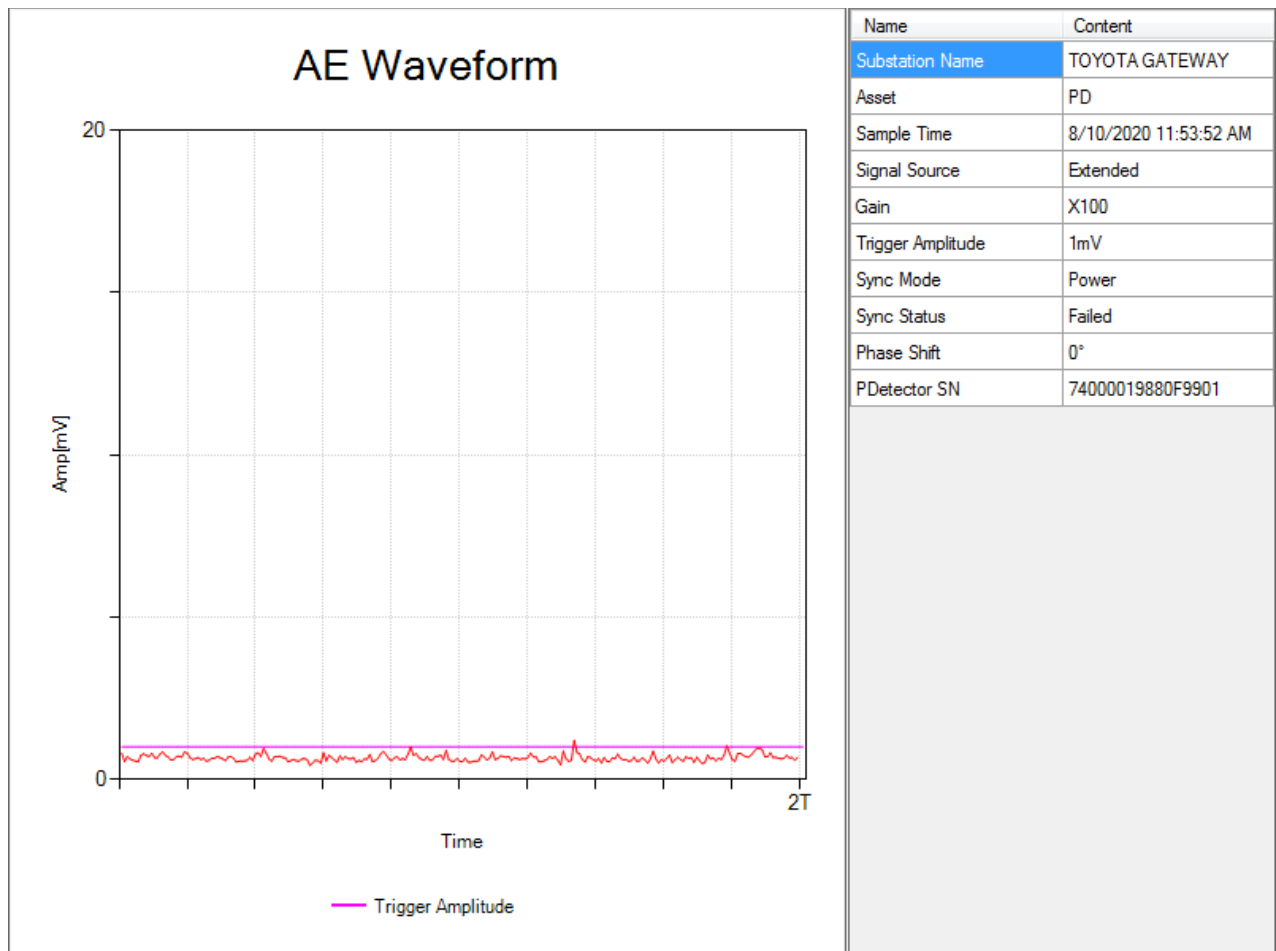


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	DC POWER SUP. (FRONT PANEL)
VOLTAGE LEVEL	22 KV

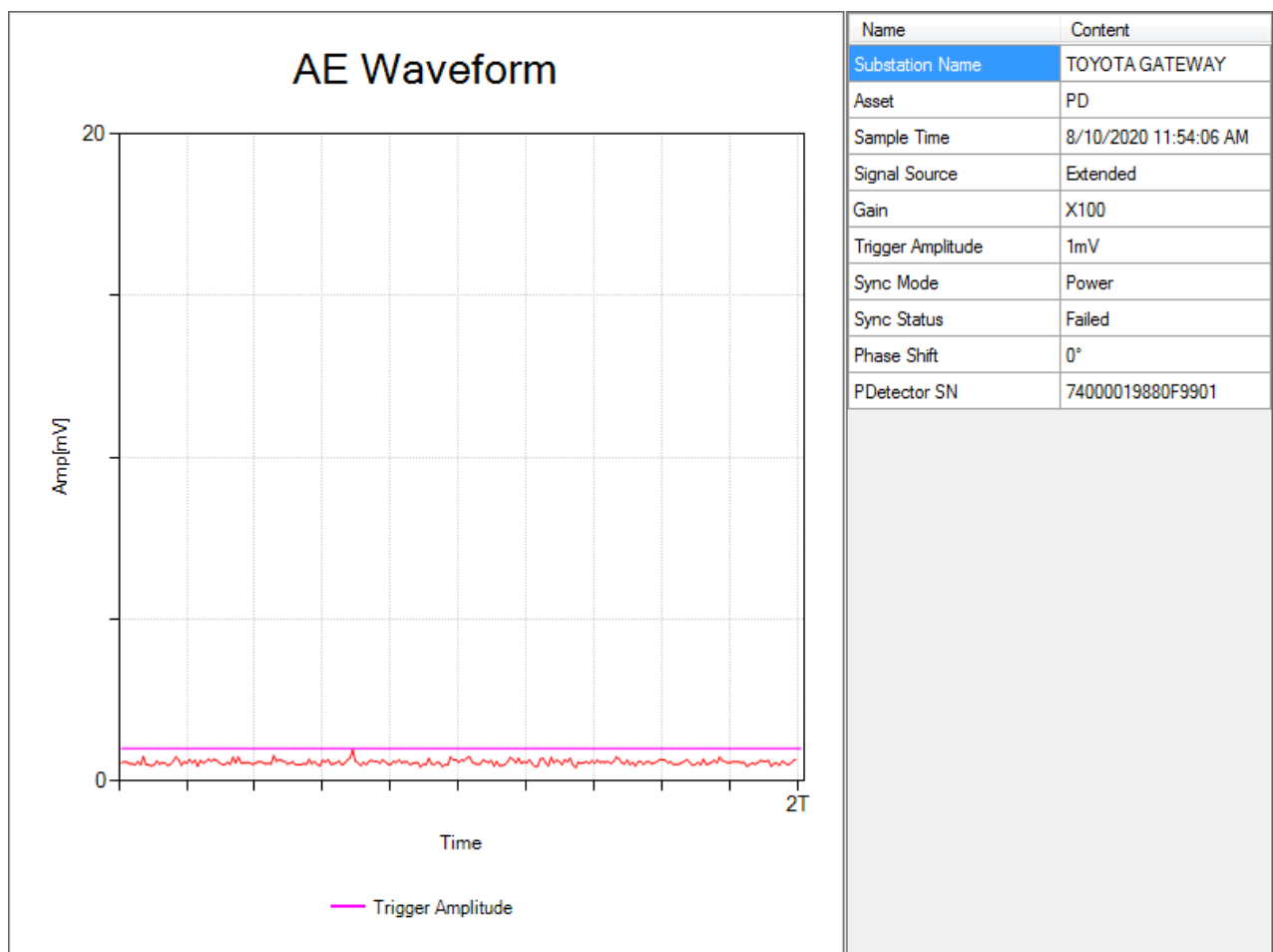


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	NO.2BANK BUS-TIE (FRONT PANEL)
VOLTAGE LEVEL	22 KV

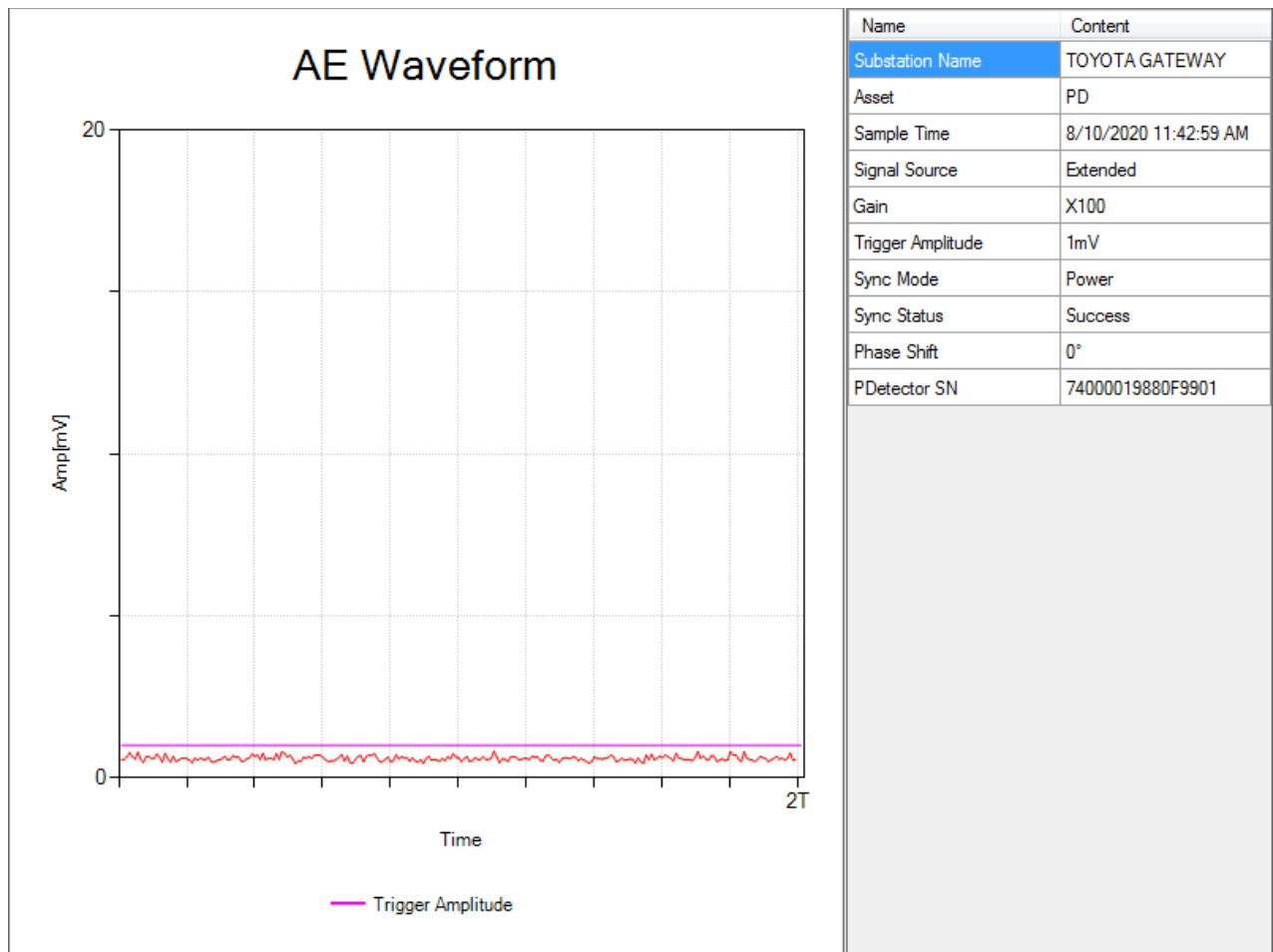


COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PARTIAL DISCHARGE REPORT

1. DETECTION METHOD BY AE Internal/Extended MODE

COSTOMER	TOYOTA GATEWAY (THAILAND) CO.,LTD.
SUBSTATION	GIS
POSITION	NO.2 TR SEE (BACK PANEL)
VOLTAGE LEVEL	22 KV



COMMENT	No Partial discharge (PD) was found.
EVALUATION	Normal
SUGGESTION	No action
TESTED AND REPORTED BY	Mr.Tukdanai Pothanak
APPROVED BY	Mr.Chanvit Crukaew

PHOTO REPORT

PHOTO REPORT



PARTIAL DISCHARGE DETECTED BY VISUALLY INSPECT



PARTIAL DISCHARGE DETECTED BY VISUALLY INSPECT

PHOTO REPORT



PARTIAL DISCHARGE DETECTED BY VISUALLY INSPECT



PARTIAL DISCHARGE DETECTED BY VISUALLY INSPECT

PHOTO REPORT



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PHOTO REPORT



PARTIAL DISCHARGE DETECTED BY VISUALLY INSPECT



PARTIAL DISCHARGE DETECTED BY VISUALLY INSPECT

APPENDIX.1: DECISION CRITERION

DECISION CRITERION

UHF

Normal	< 30 dB
Warning	30 – 50 dB
Critical	>50 dB

AE Internal/Extended

Normal	< 1 mV
Warning	1-5 mV
Critical	>5 mV

AE Ultrasonic Dish

Normal	< 5 mV
Warning	5-20 mV
Critical	>20 mV

HFCT

Normal	<20 dB
Warning	20-40 dB
Critical	>40 dB

TEV

Normal	<30 dB
Warning	30-60 dB
Critical	>60 dB

APPENDIX.2 : FINGER PRINT OF PARTIAL DISCHARGE

FINGER PRINT OF PARTIAL DISCHARGE

1. Finger print of corona discharge

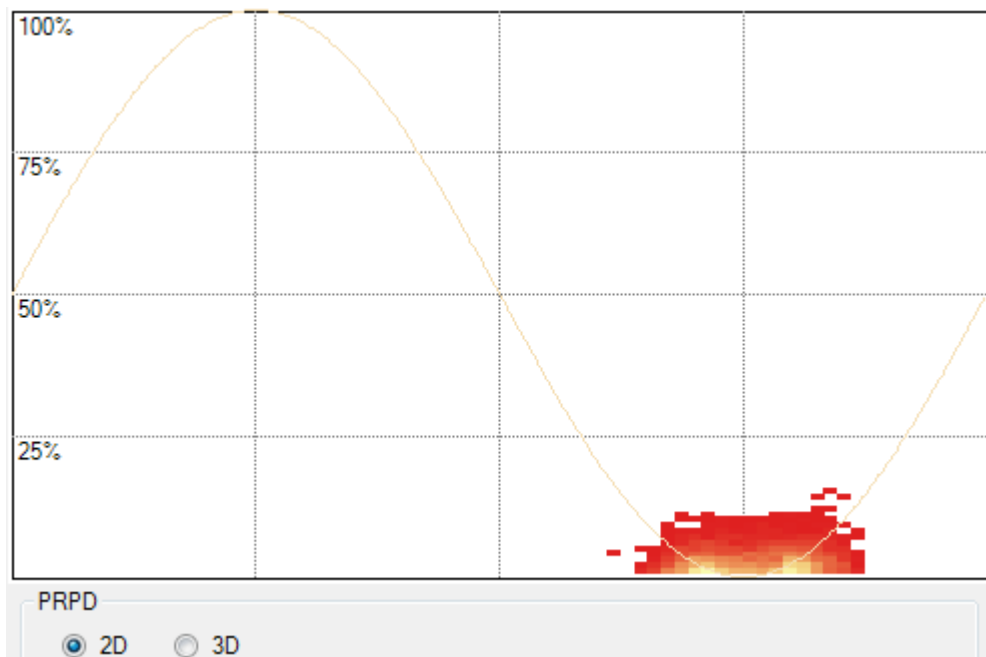
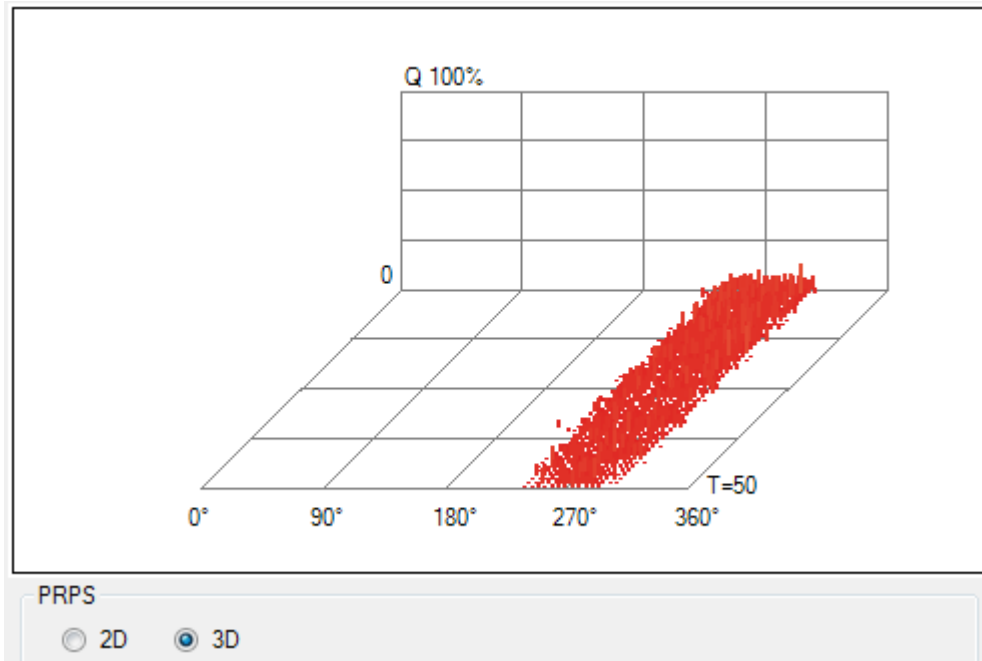


PHOTO.1 CORONA PATTERN 1

FINGER PRINT OF PARTIAL DISCHARGE

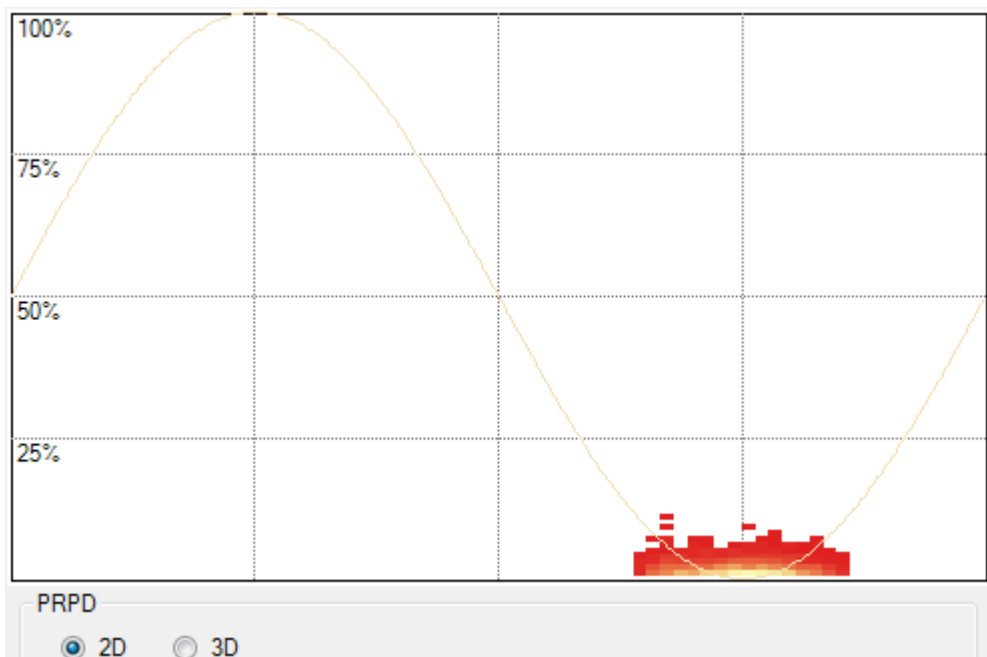
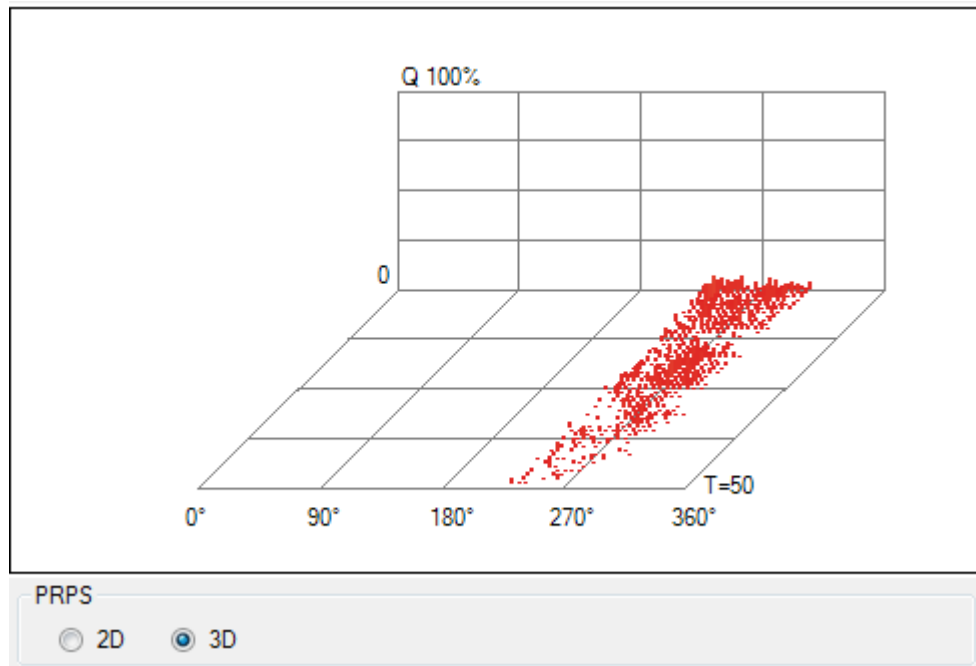


PHOTO.2 CORONA PATTERN 2

FINGER PRINT OF PARTIAL DISCHARGE

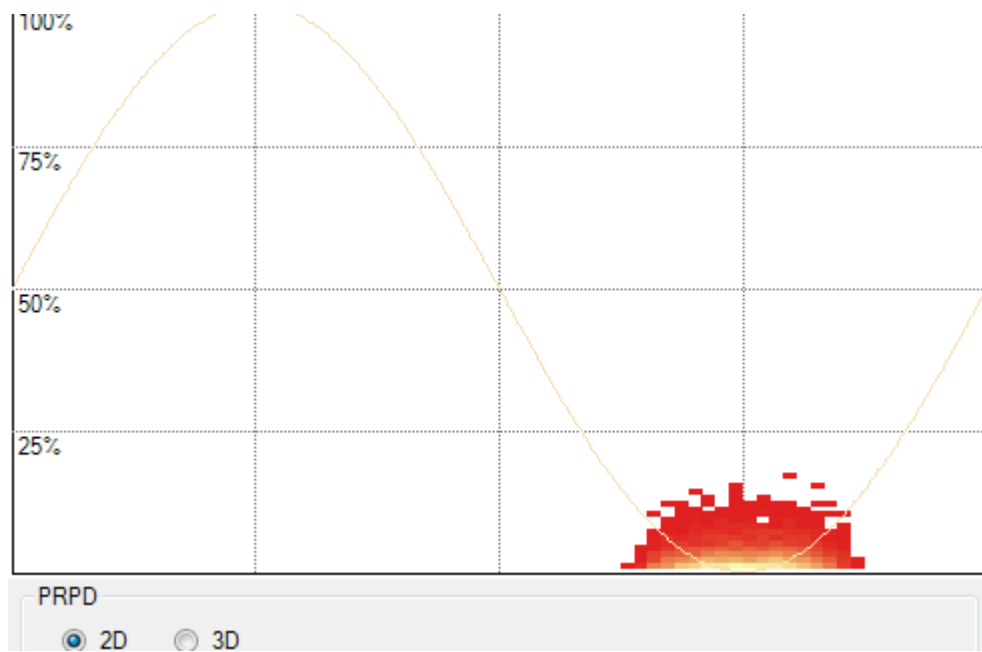
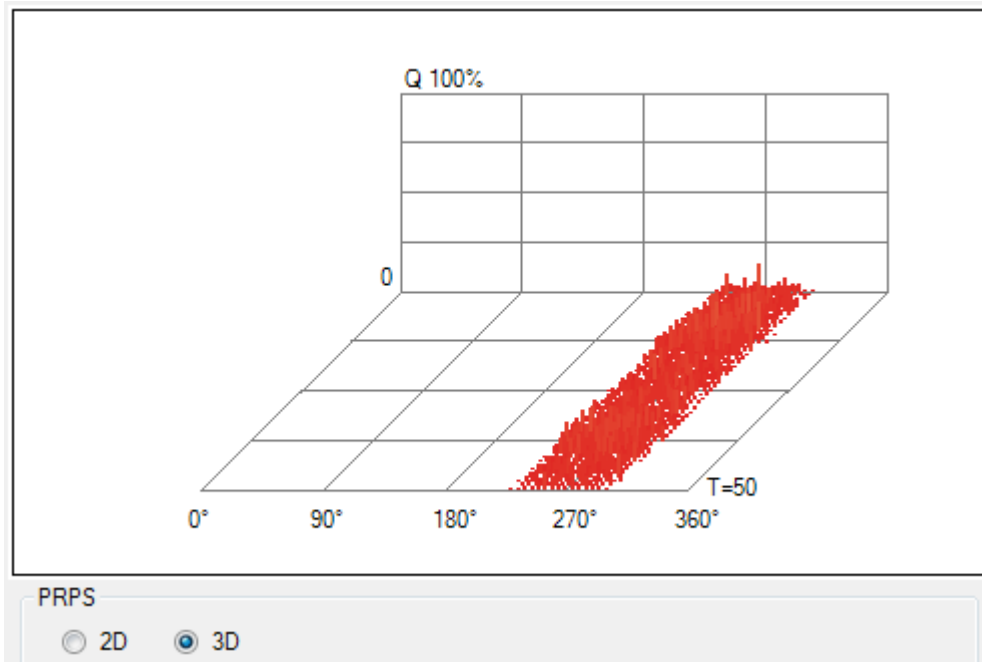


PHOTO.3 CORONA PATTERN 3

FINGER PRINT OF PARTIAL DISCHARGE

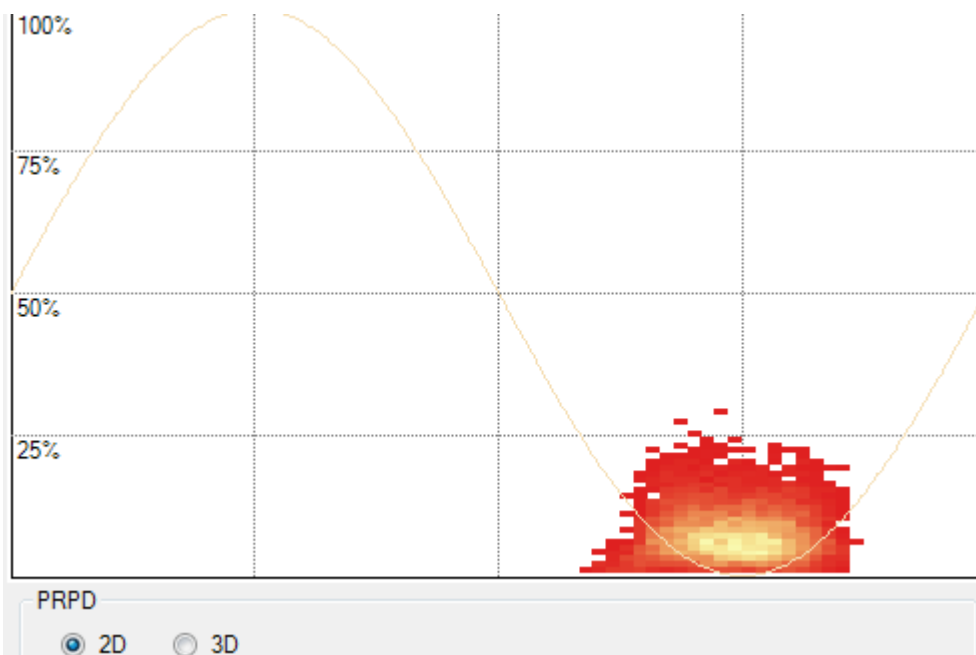
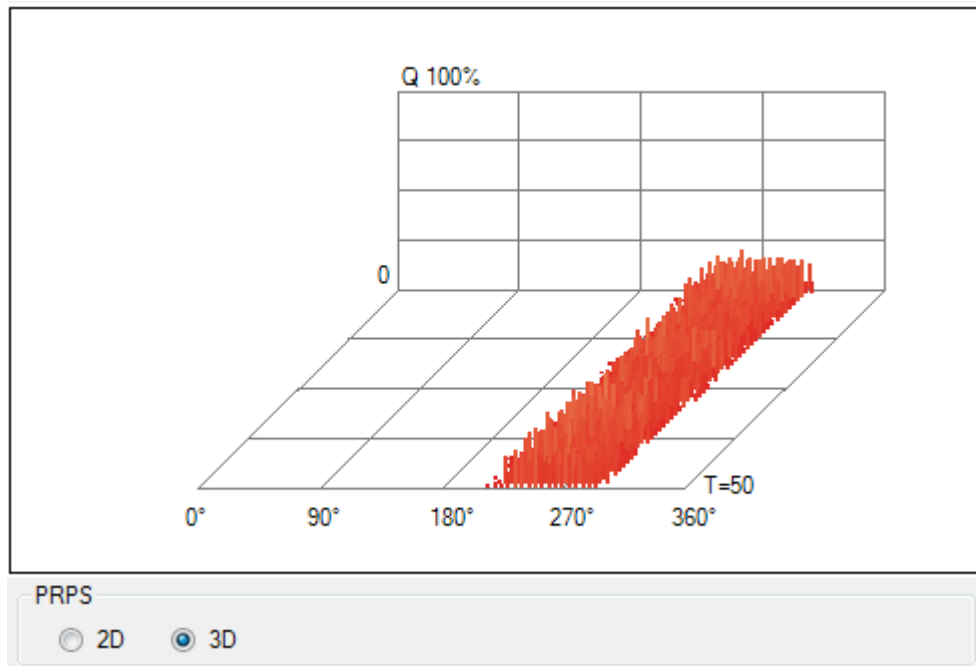


PHOTO.4 CORONA PATTERN 4

FINGER PRINT OF PARTIAL DISCHARGE

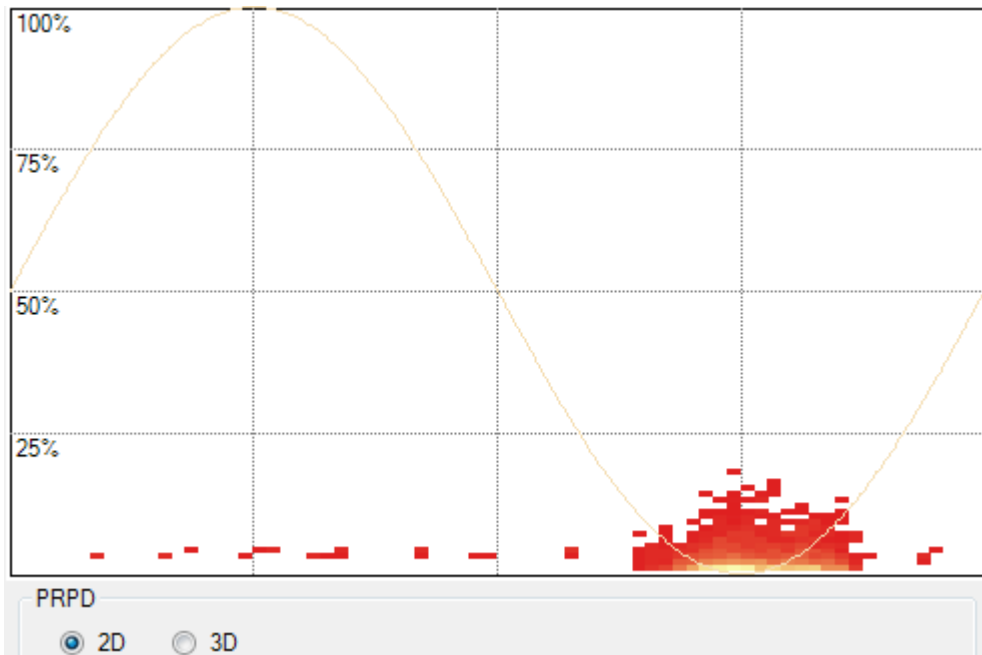
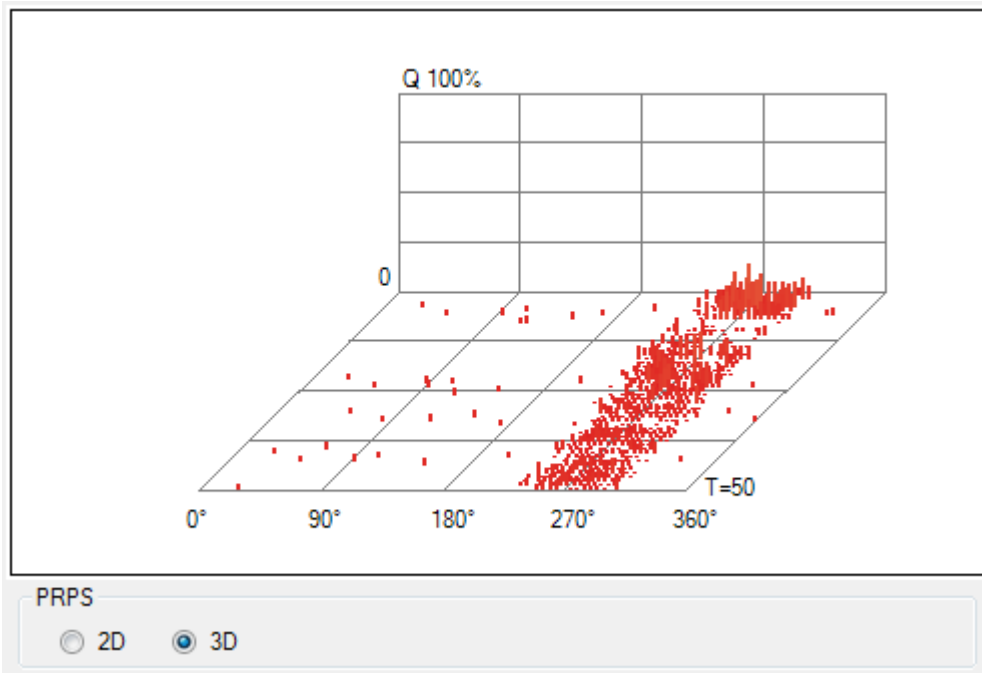


PHOTO.5 CORONA PATTERN 5

FINGER PRINT OF PARTIAL DISCHARGE

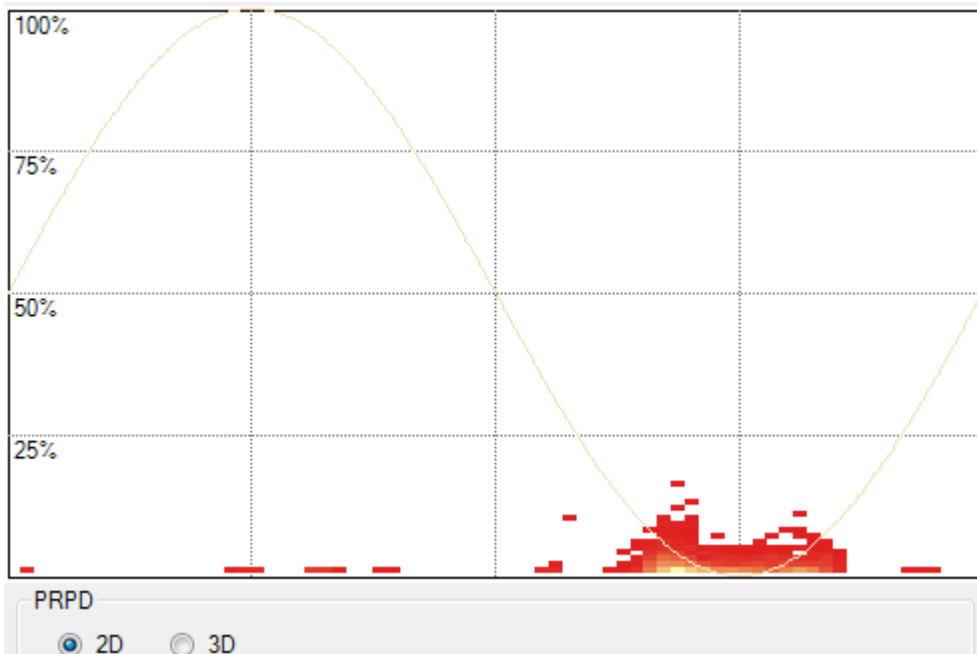
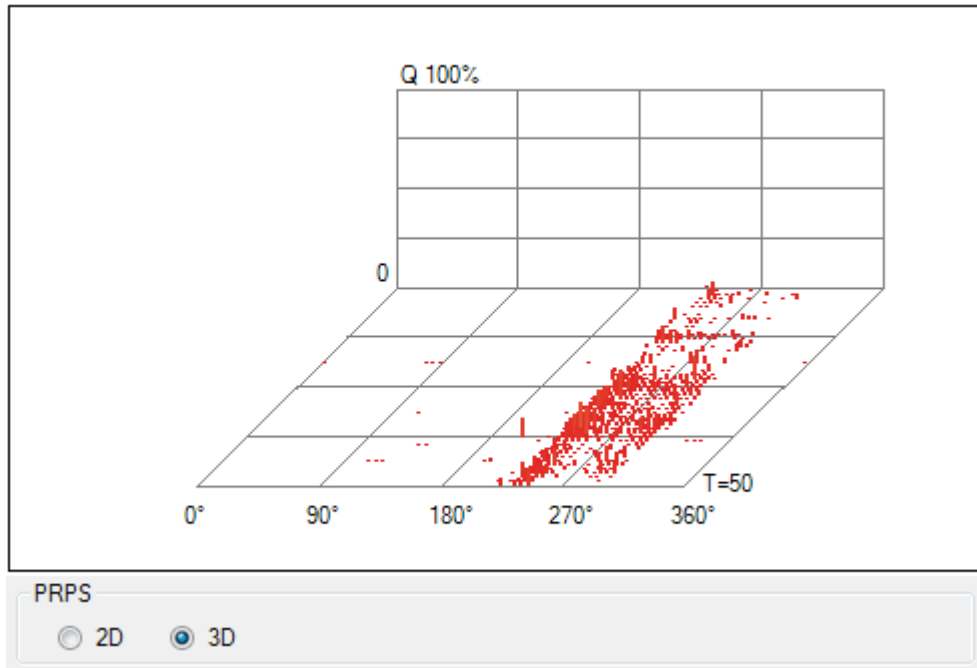


PHOTO.6 CORONA PATTERN 6

FINGER PRINT OF PARTIAL DISCHARGE

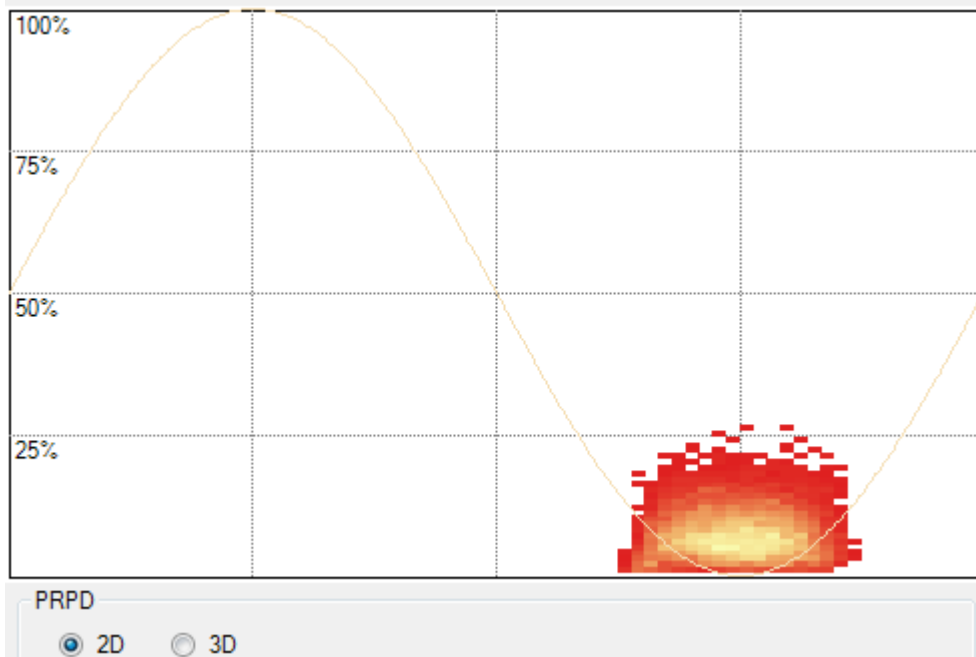
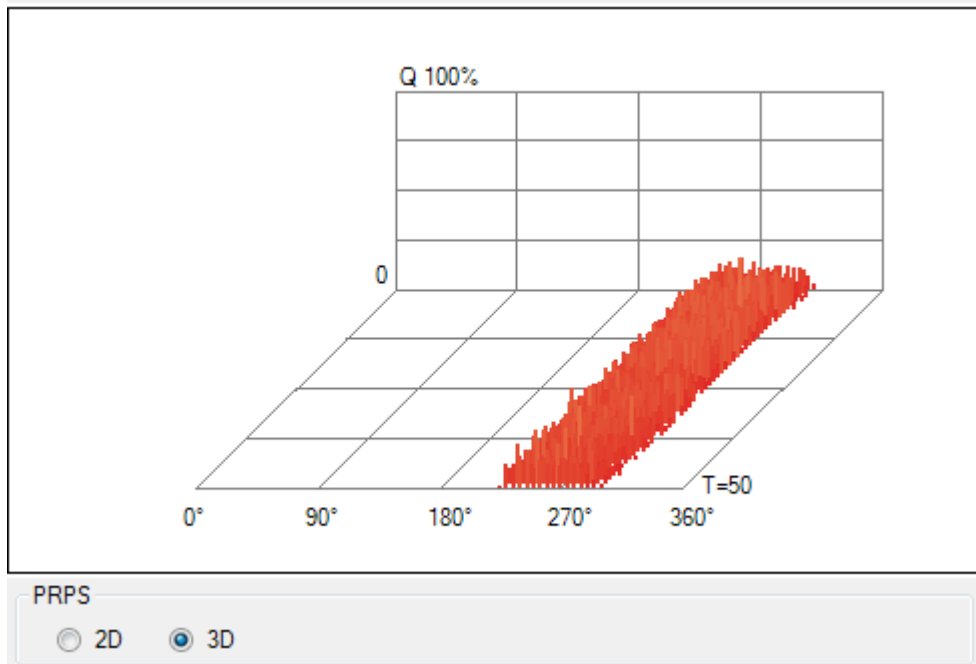


PHOTO.7 CORONA PATTERN 7

FINGER PRINT OF PARTIAL DISCHARGE

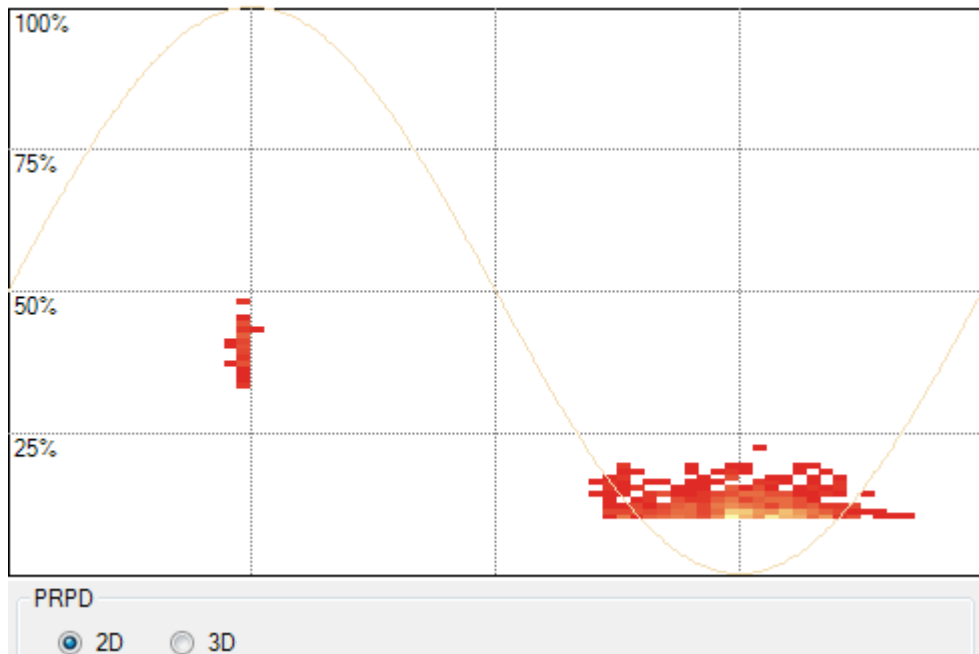
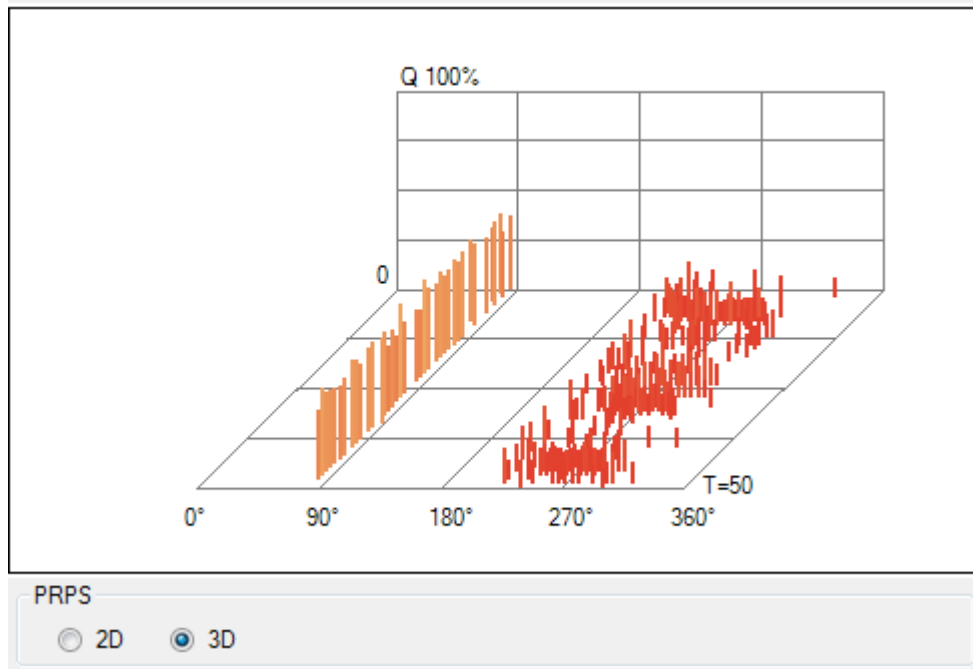


PHOTO.8 CORONA PATTERN 8

FINGER PRINT OF PARTIAL DISCHARGE

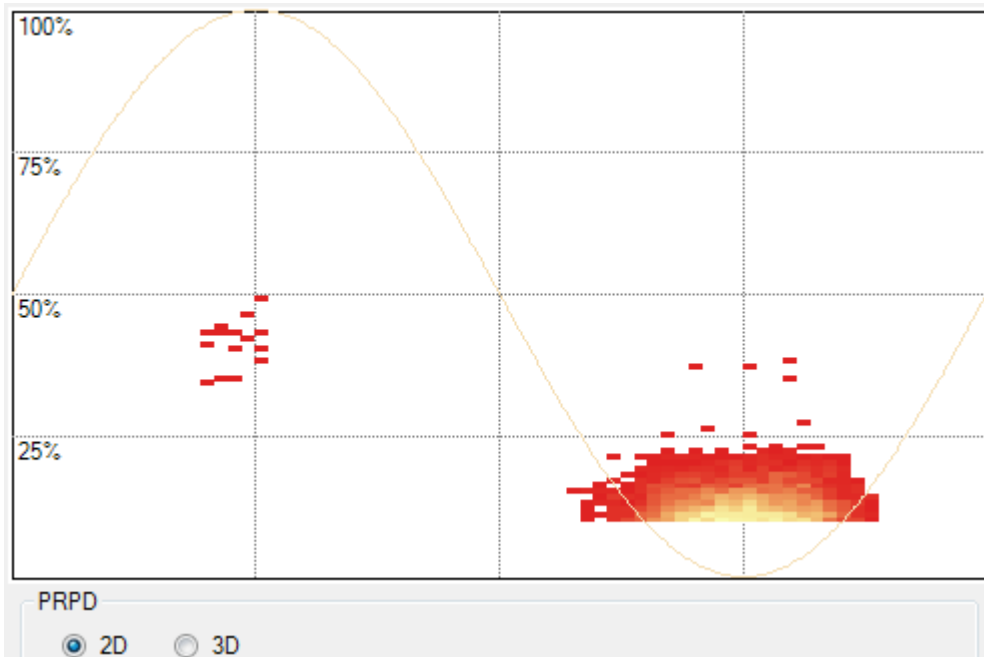
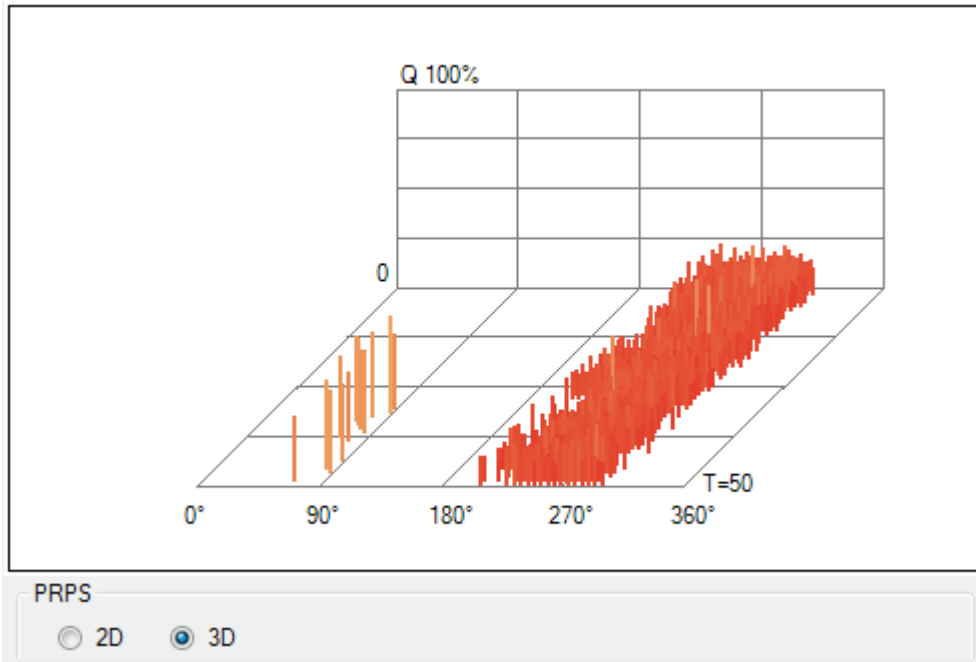


PHOTO.9 CORONA PATTERN 9

FINGER PRINT OF PARTIAL DISCHARGE

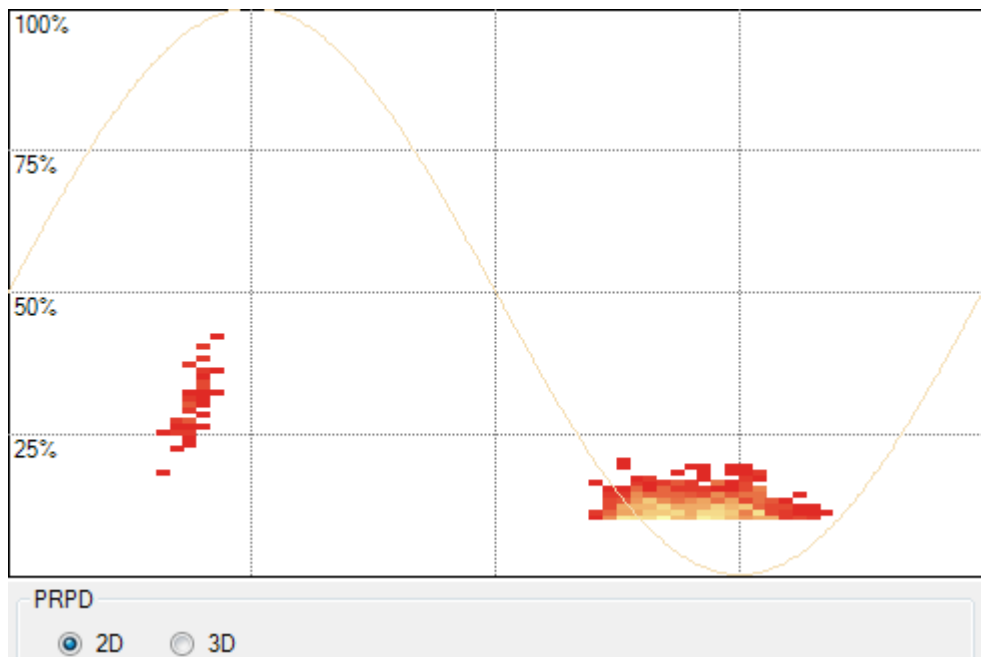
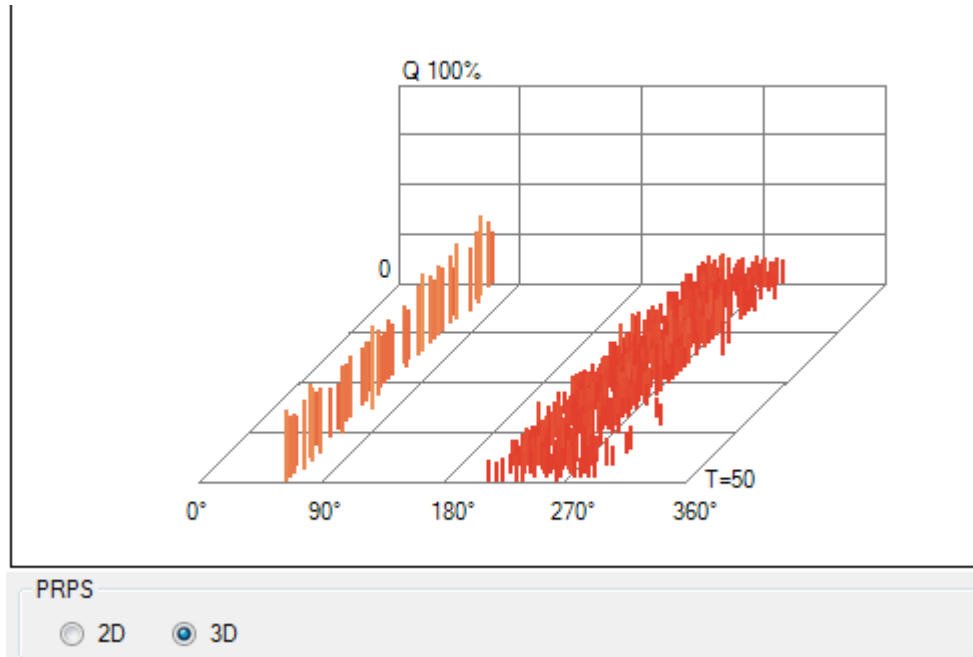


PHOTO.10 CORONA PATTERN 10

FINGER PRINT OF PARTIAL DISCHARGE

2. Finger print of floating electrode

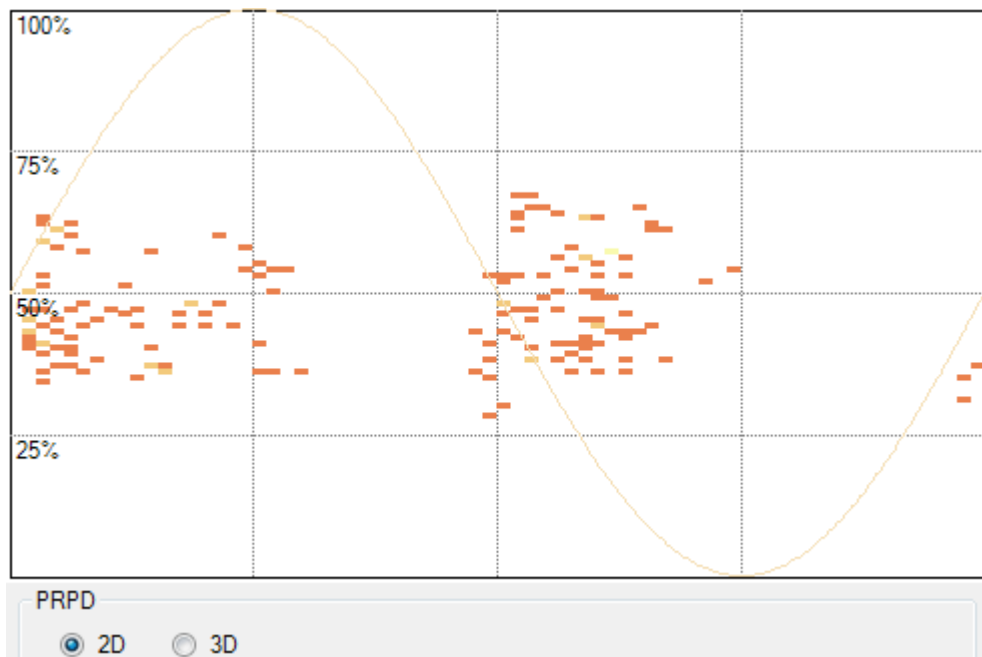
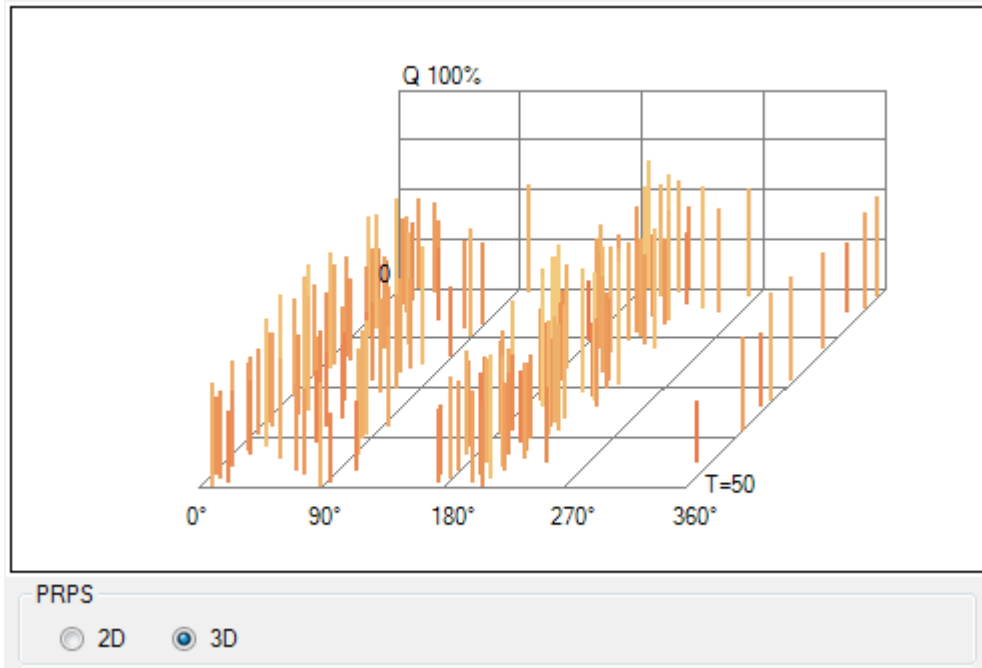


PHOTO.11 FLOATING ELECTRODE PATTERN 1

FINGER PRINT OF PARTIAL DISCHARGE

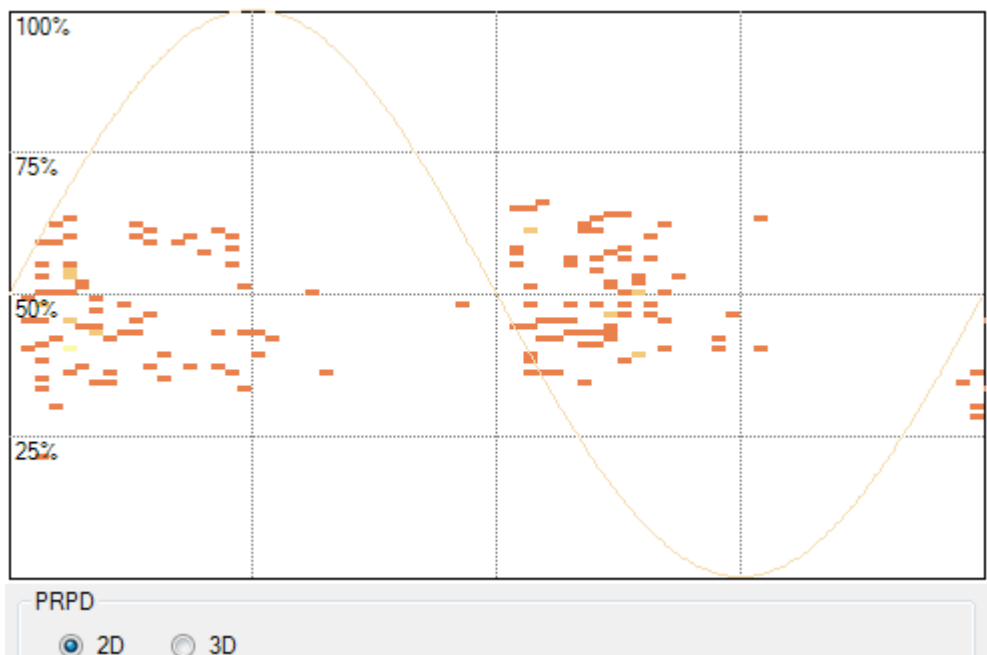
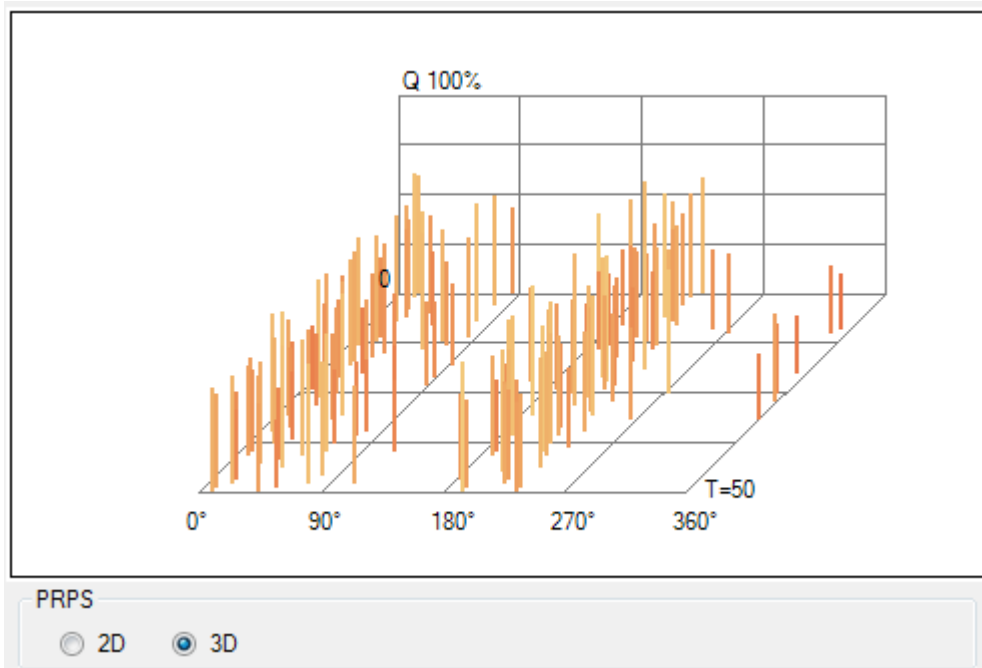


PHOTO.12 FLOATING ELECTRODE PATTERN 2

FINGER PRINT OF PARTIAL DISCHARGE

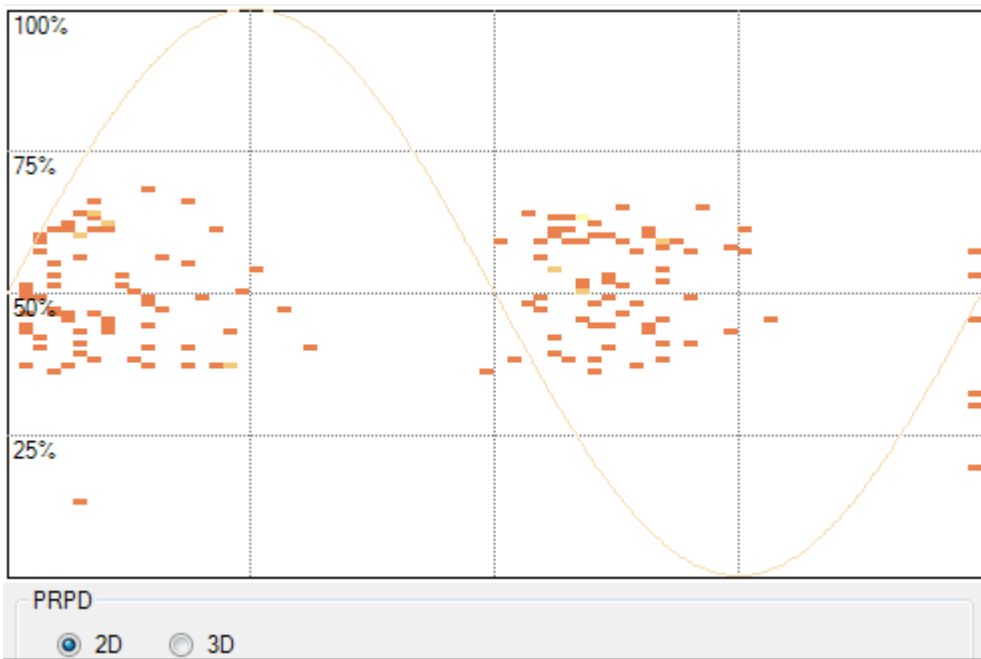
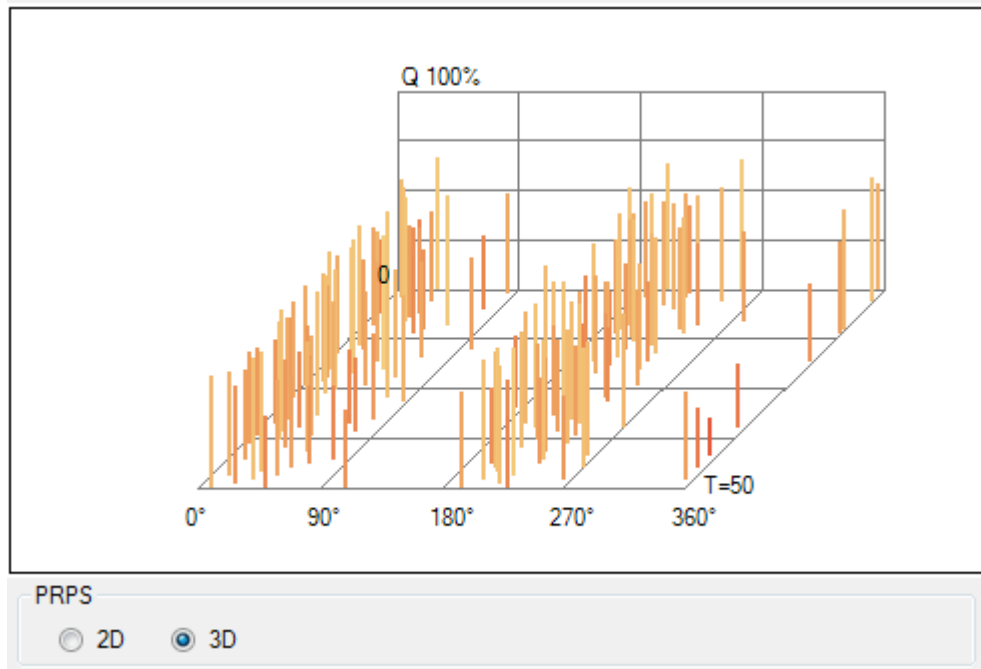


PHOTO.13 FLOATING ELECTRODE PATTERN 3

FINGER PRINT OF PARTIAL DISCHARGE

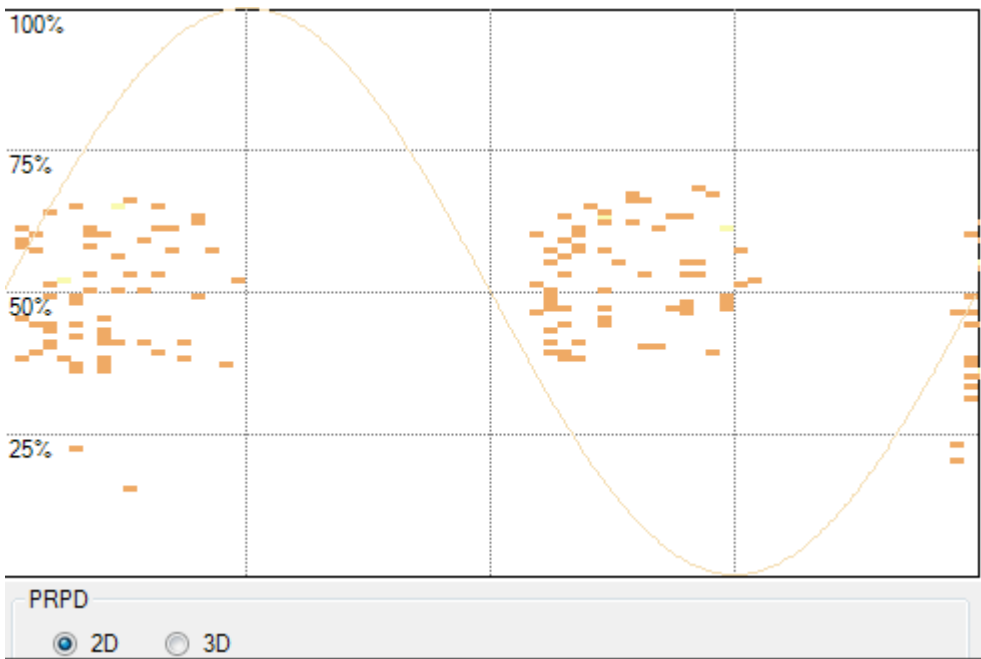
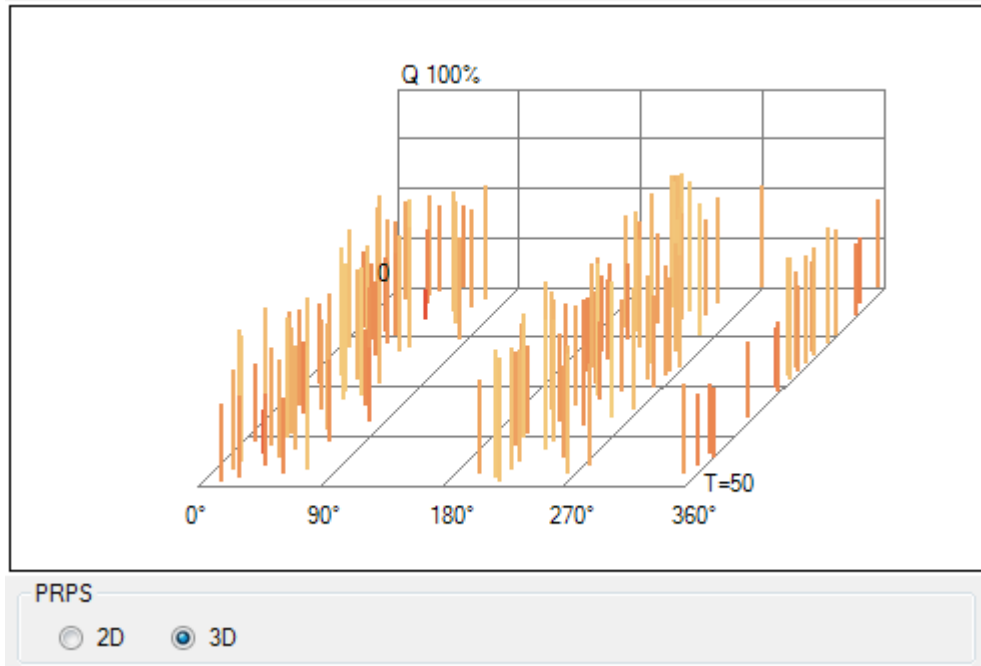


PHOTO.14 FLOATING ELECTRODE PATTERN 4

FINGER PRINT OF PARTIAL DISCHARGE

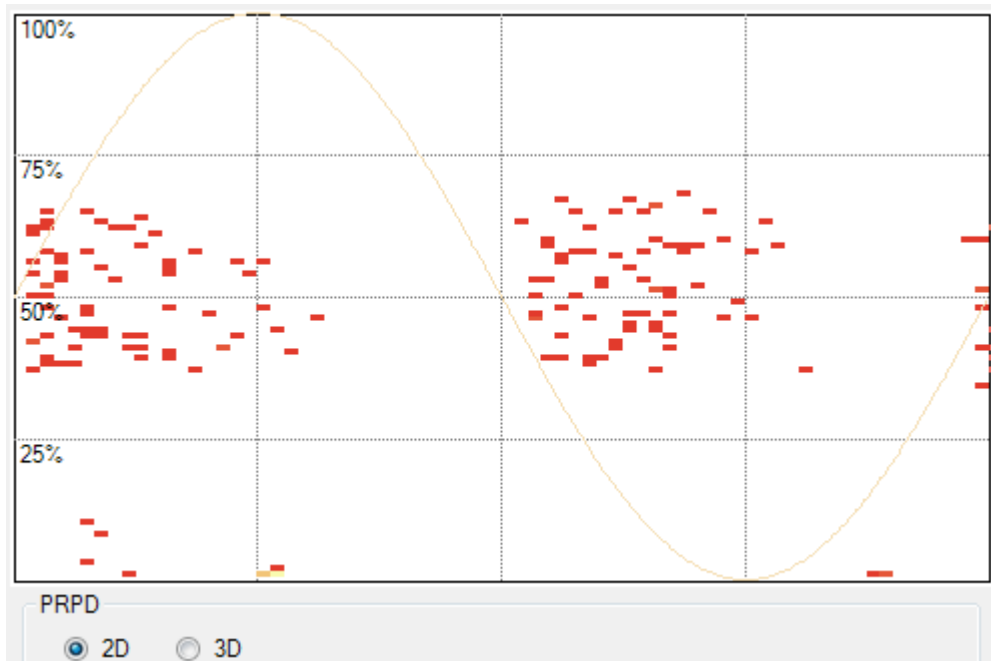
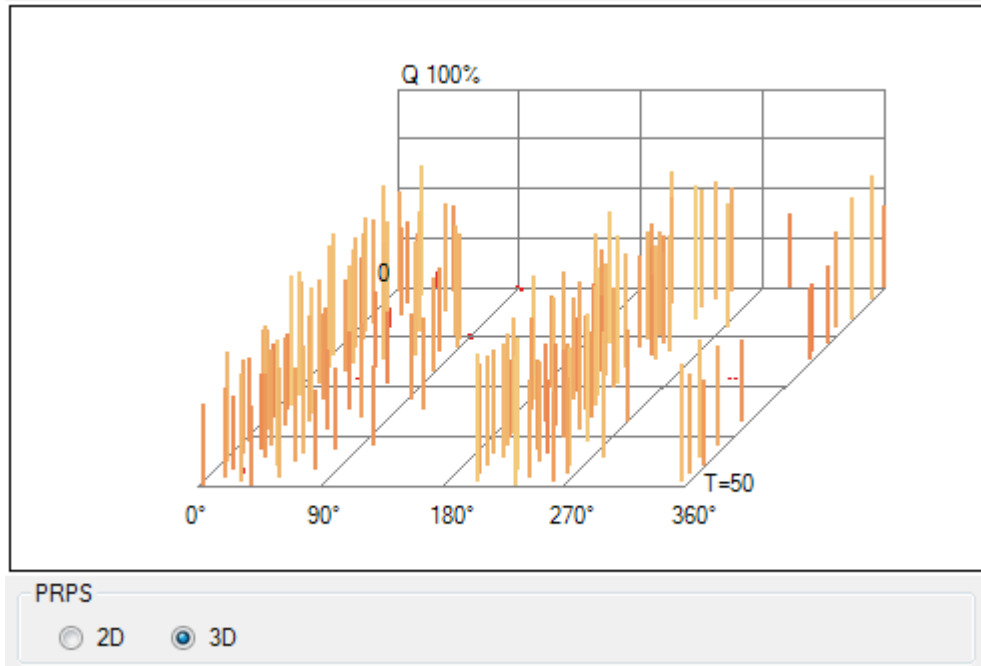


PHOTO.15 FLOATING ELECTRODE PATTERN 5

FINGER PRINT OF PARTIAL DISCHARGE

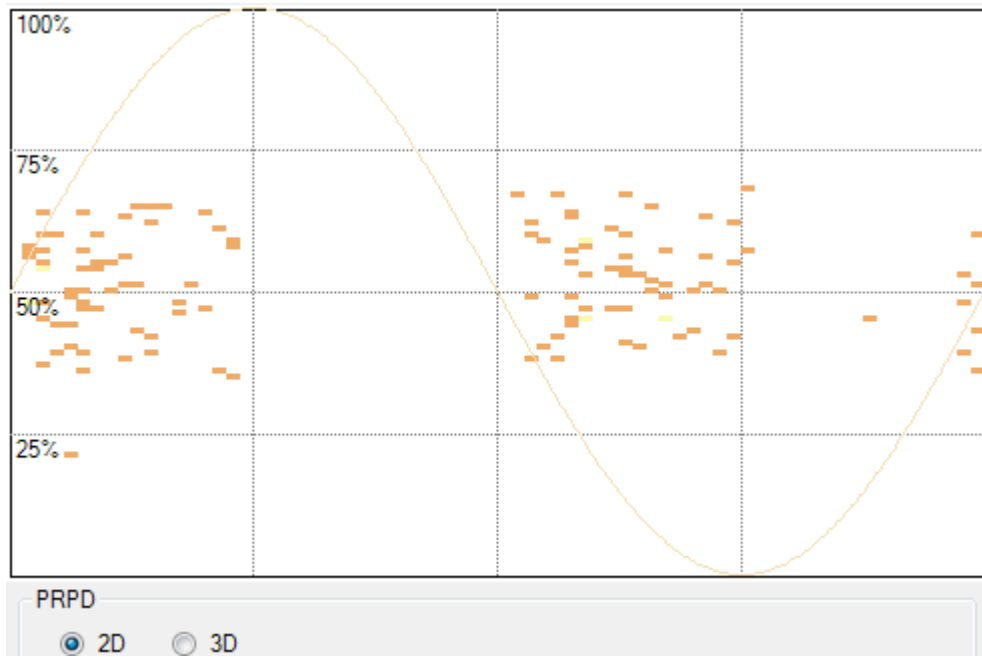
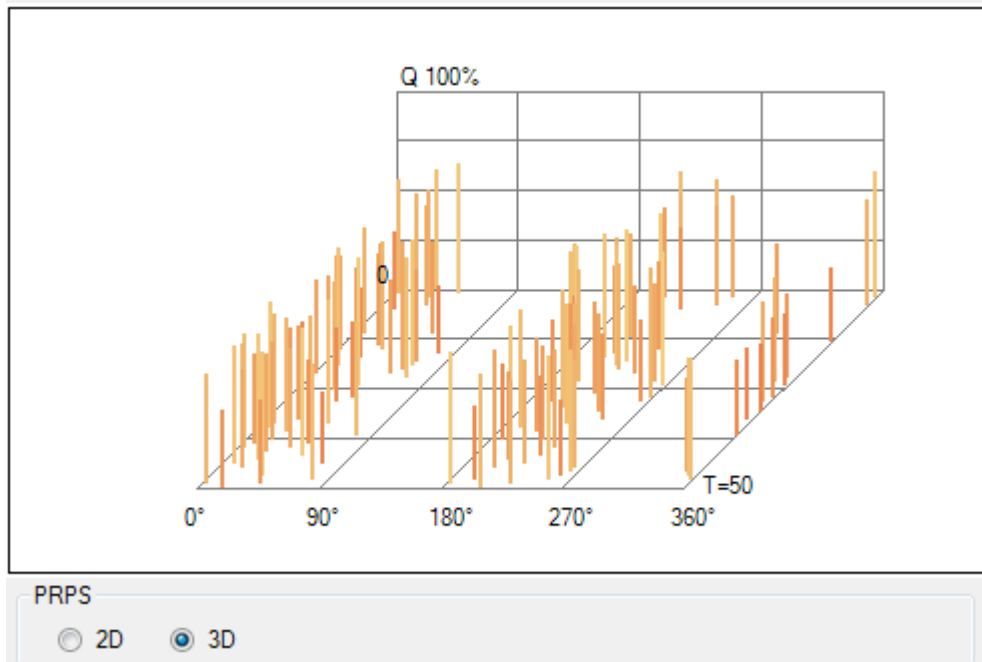


PHOTO.16 FLOATING ELECTRODE PATTERN 6

FINGER PRINT OF PARTIAL DISCHARGE

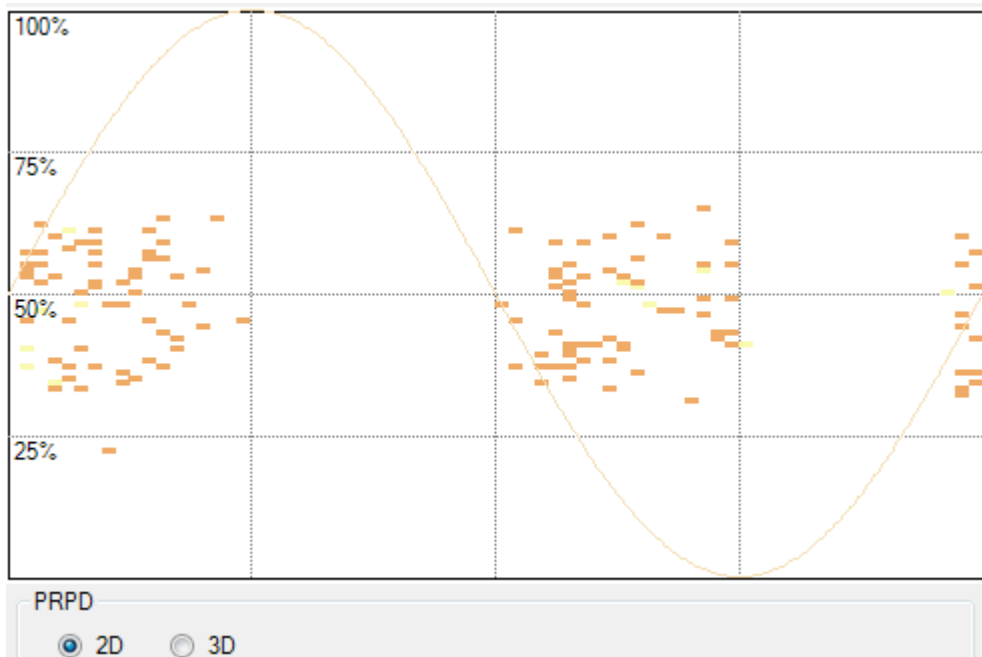
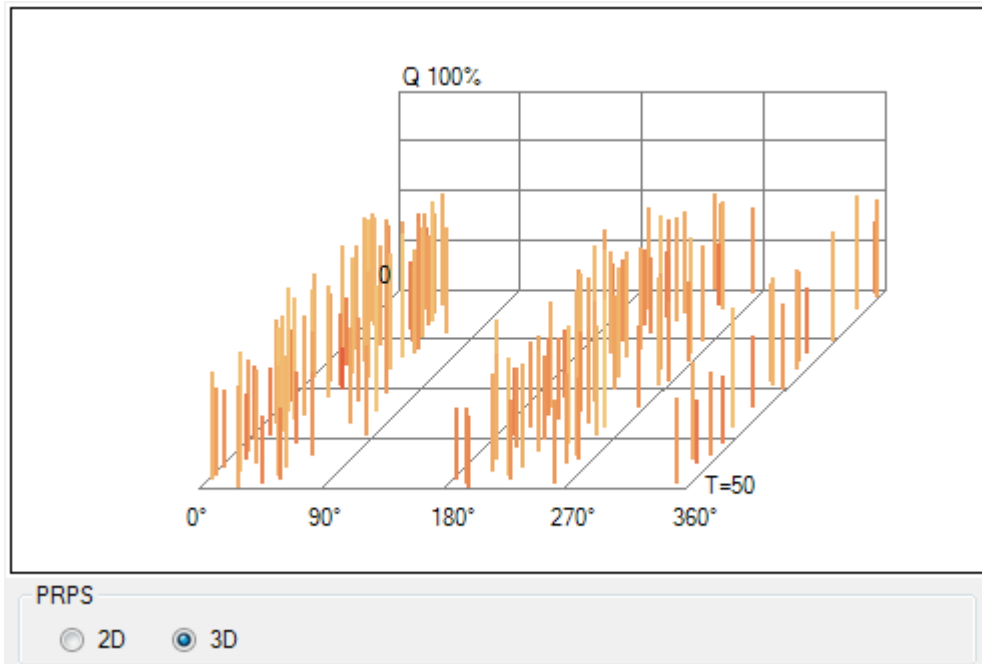


PHOTO.17 FLOATING ELECTRODE PATTERN 7

FINGER PRINT OF PARTIAL DISCHARGE

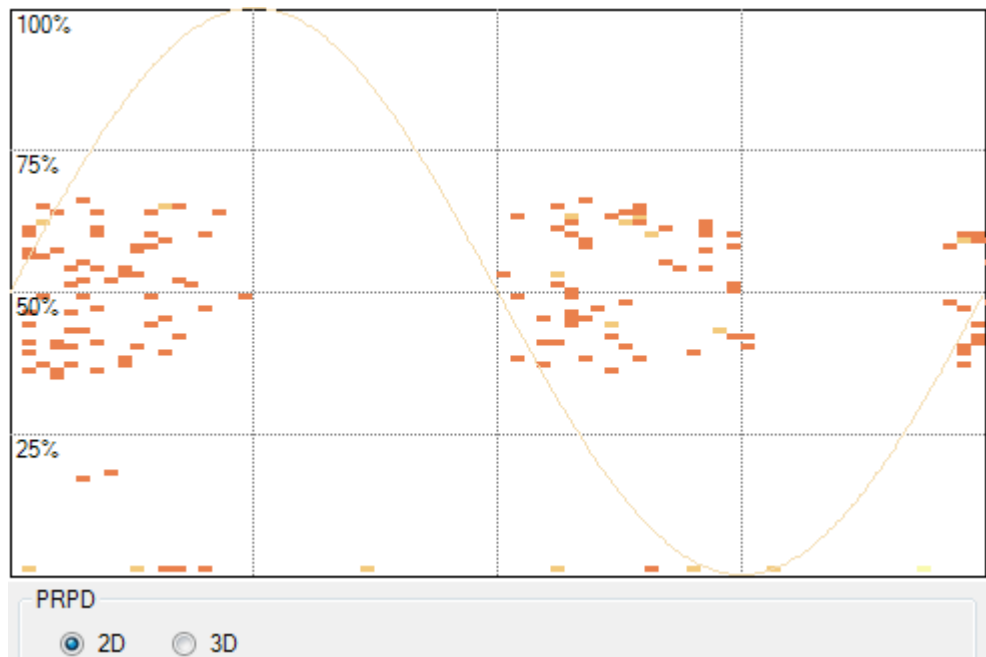
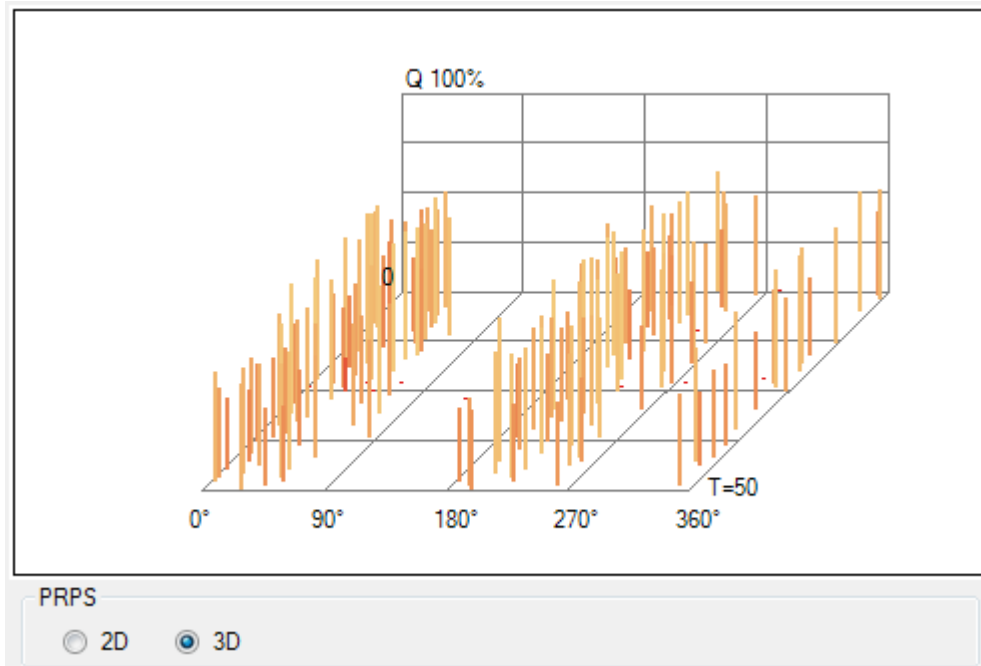


PHOTO.18 FLOATING ELECTRODE PATTERN 8

FINGER PRINT OF PARTIAL DISCHARGE

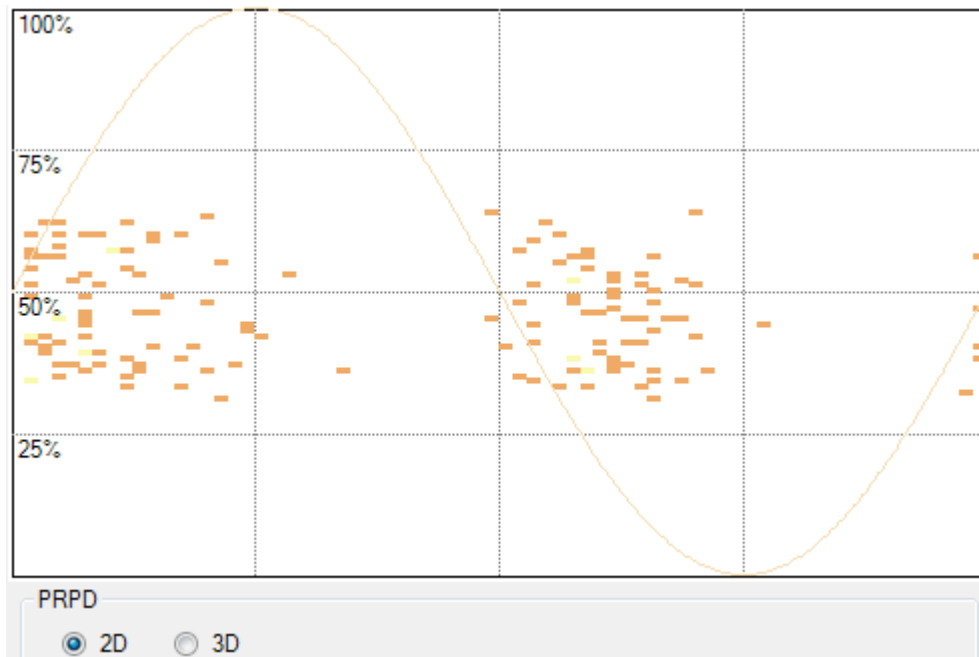
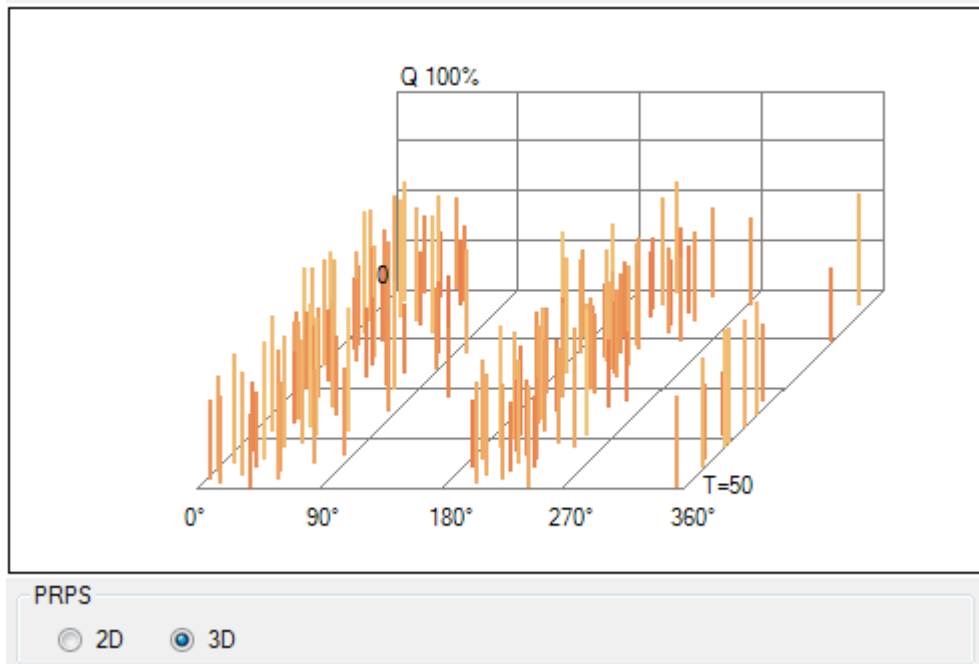


PHOTO.19 FLOATING ELECTRODE PATTERN 9

FINGER PRINT OF PARTIAL DISCHARGE

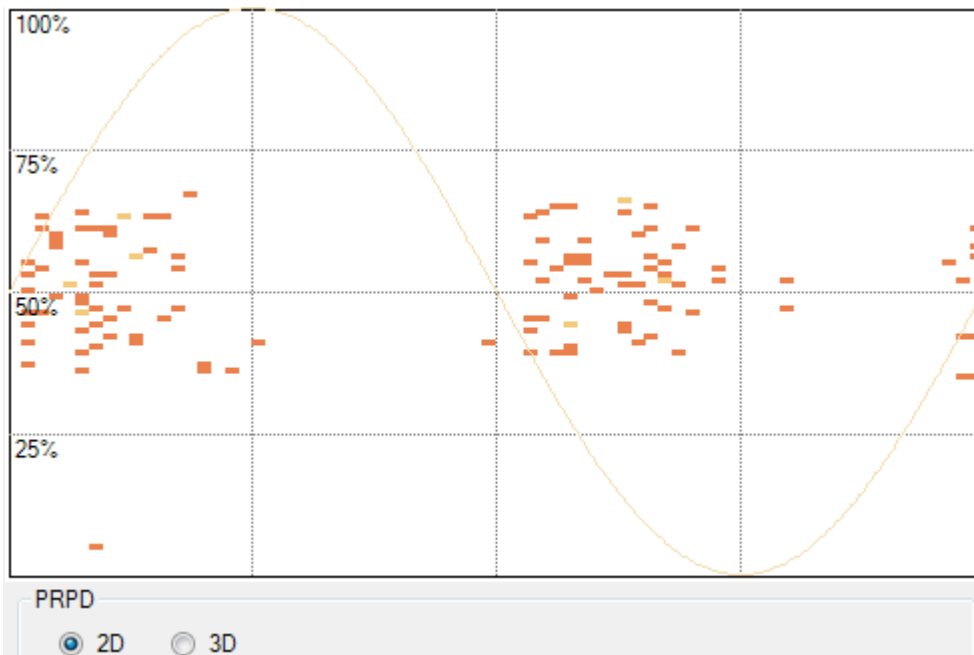
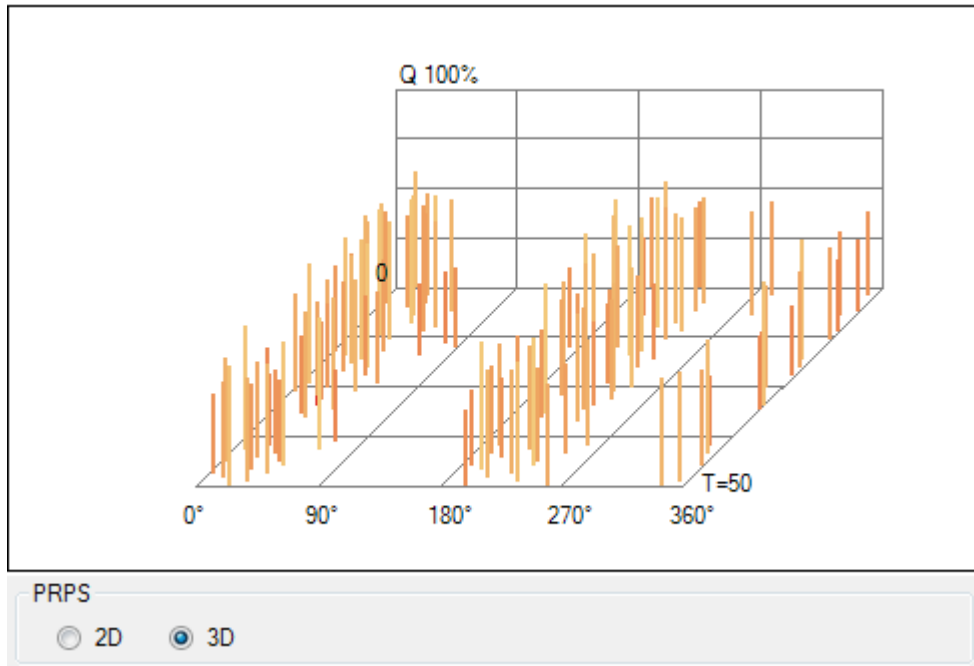


PHOTO.20 FLOATING ELECTRODE PATTERN 10

FINGER PRINT OF PARTIAL DISCHARGE

3. Finger print of particle discharge

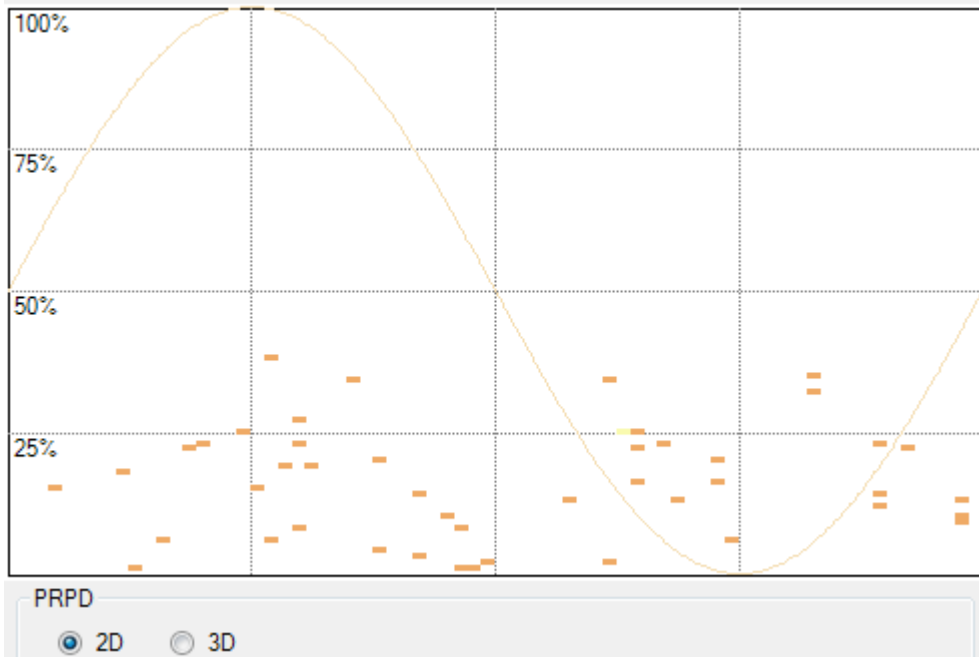
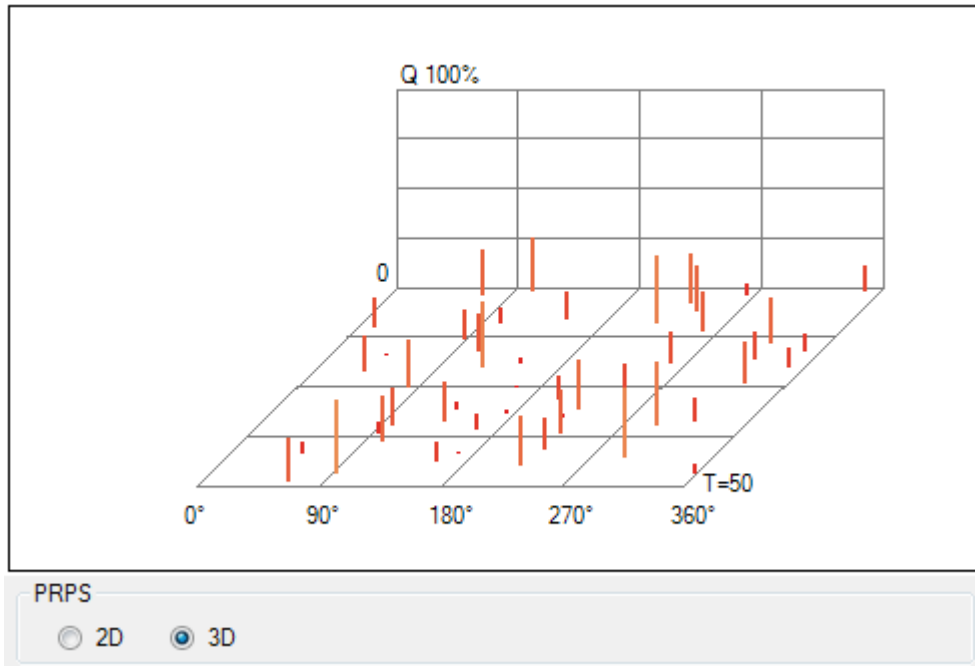


PHOTO.21 PARTICLE DISCHARGE PATTERN 1

FINGER PRINT OF PARTIAL DISCHARGE

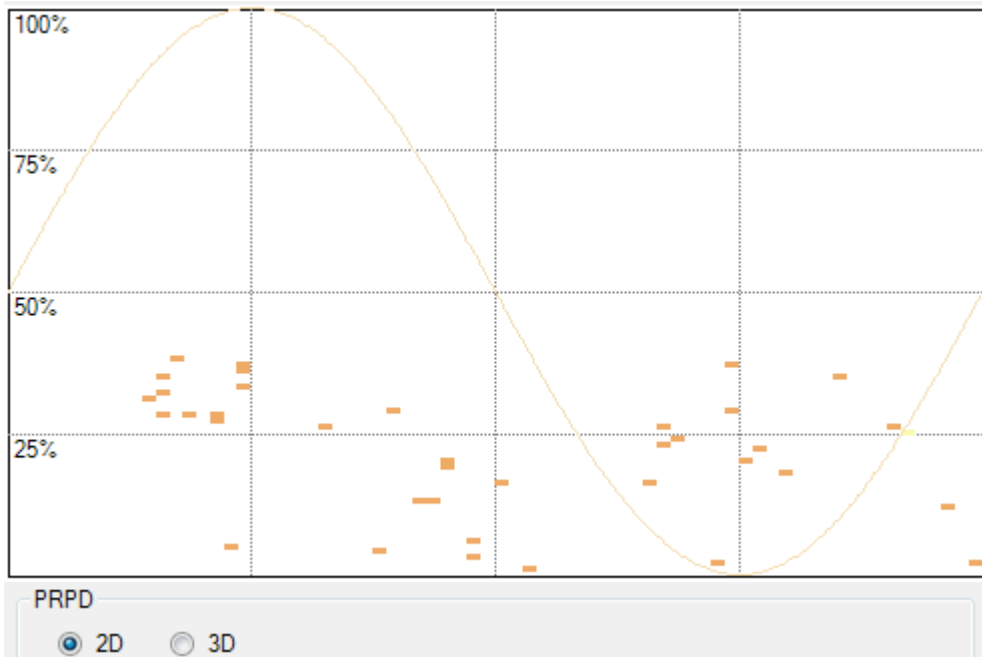
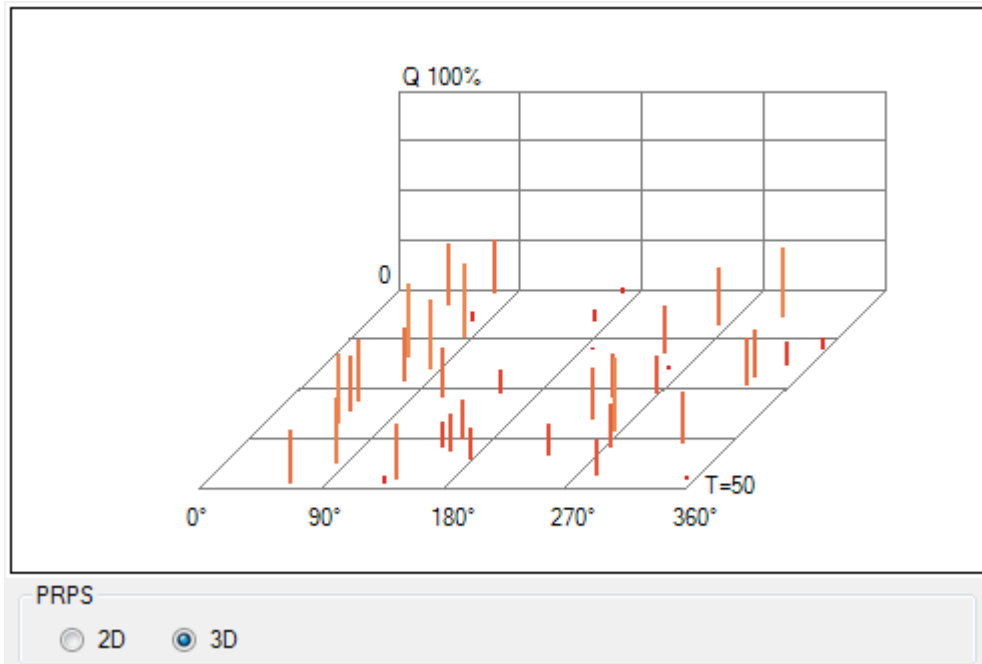


PHOTO.22 PARTICLE DISCHARGE PATTERN 2

FINGER PRINT OF PARTIAL DISCHARGE

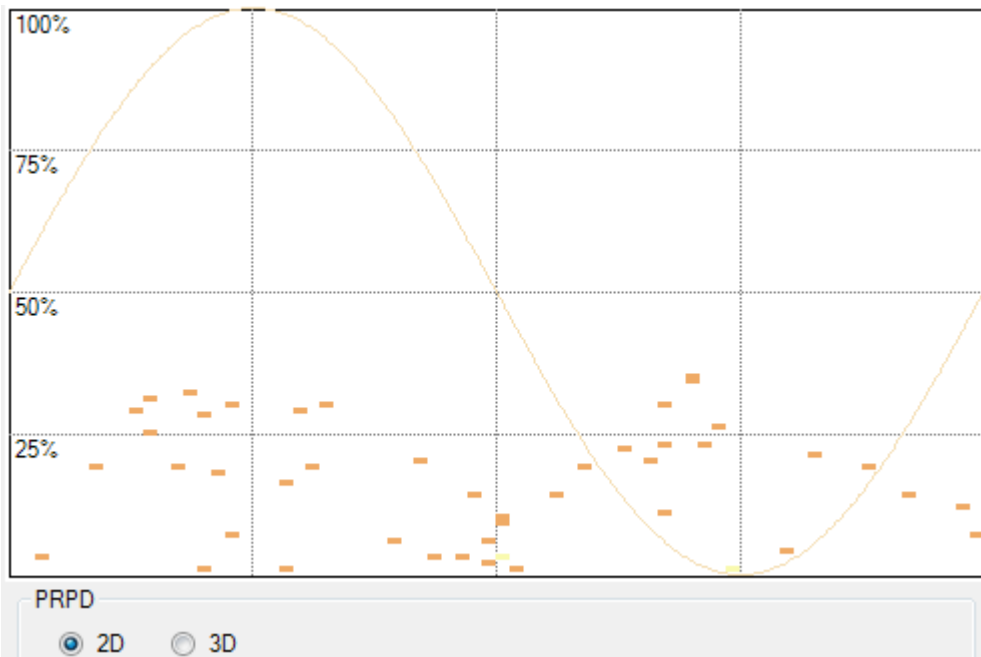
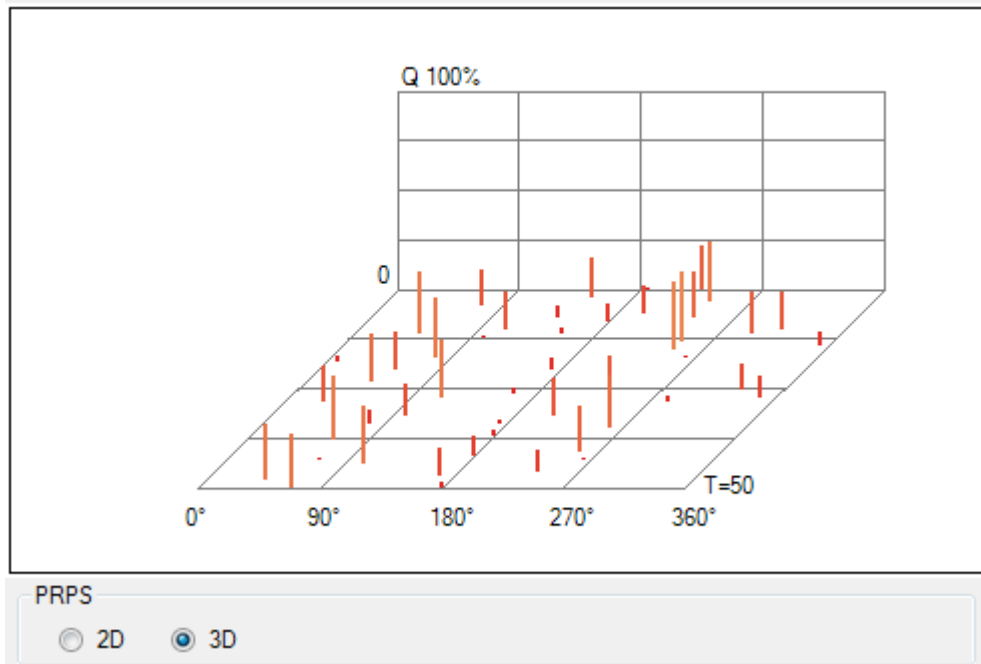


PHOTO.23 PARTICLE DISCHARGE PATTERN 3

FINGER PRINT OF PARTIAL DISCHARGE

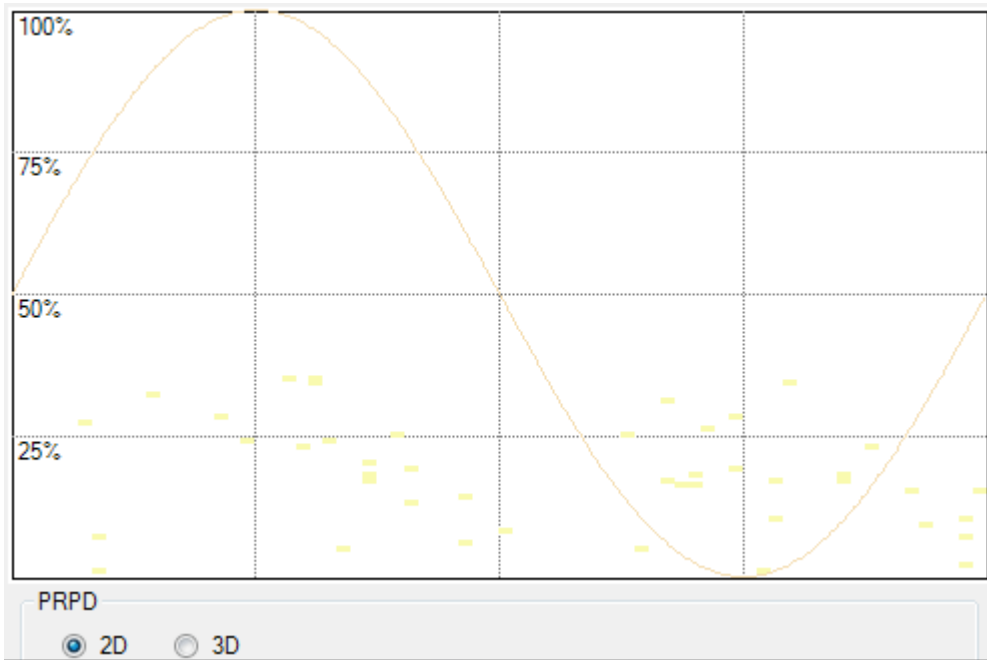
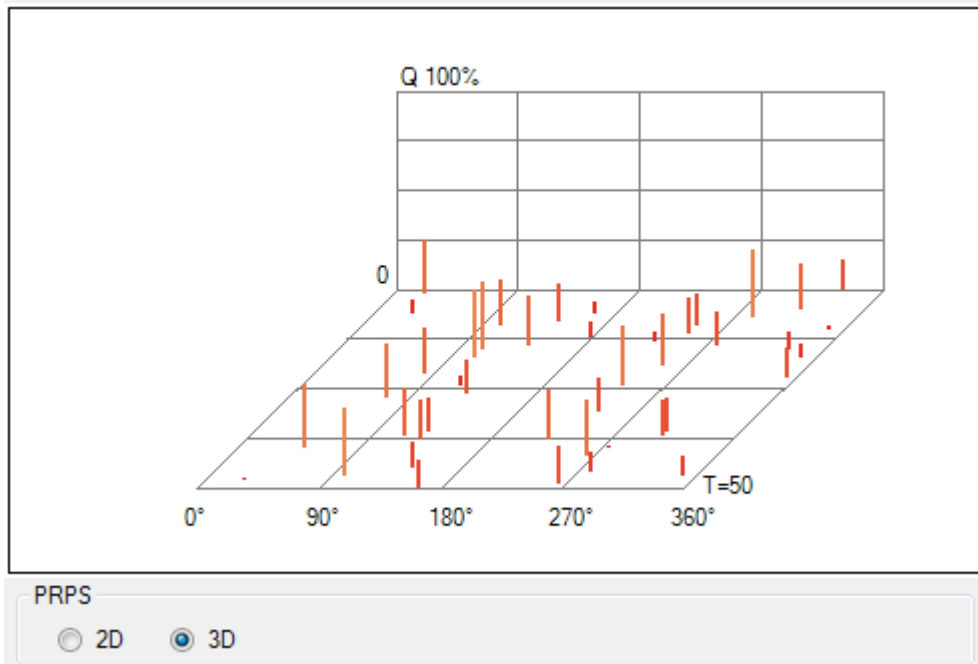


PHOTO.24 PARTICLE DISCHARGE PATTERN 4

FINGER PRINT OF PARTIAL DISCHARGE

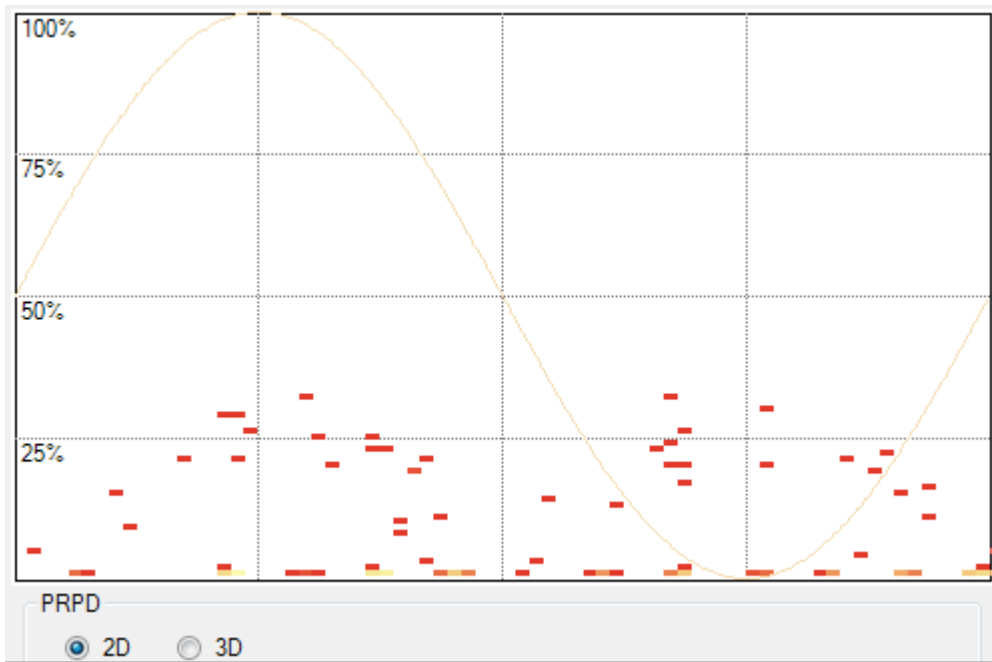
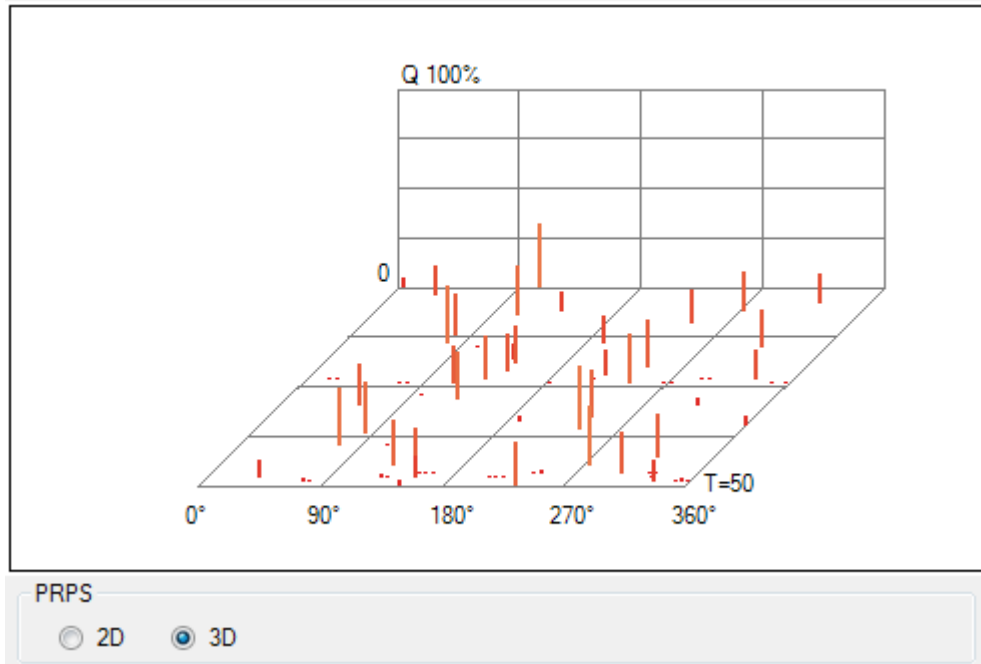


PHOTO.25 PARTICLE DISCHARGE PATTERN 5

FINGER PRINT OF PARTIAL DISCHARGE

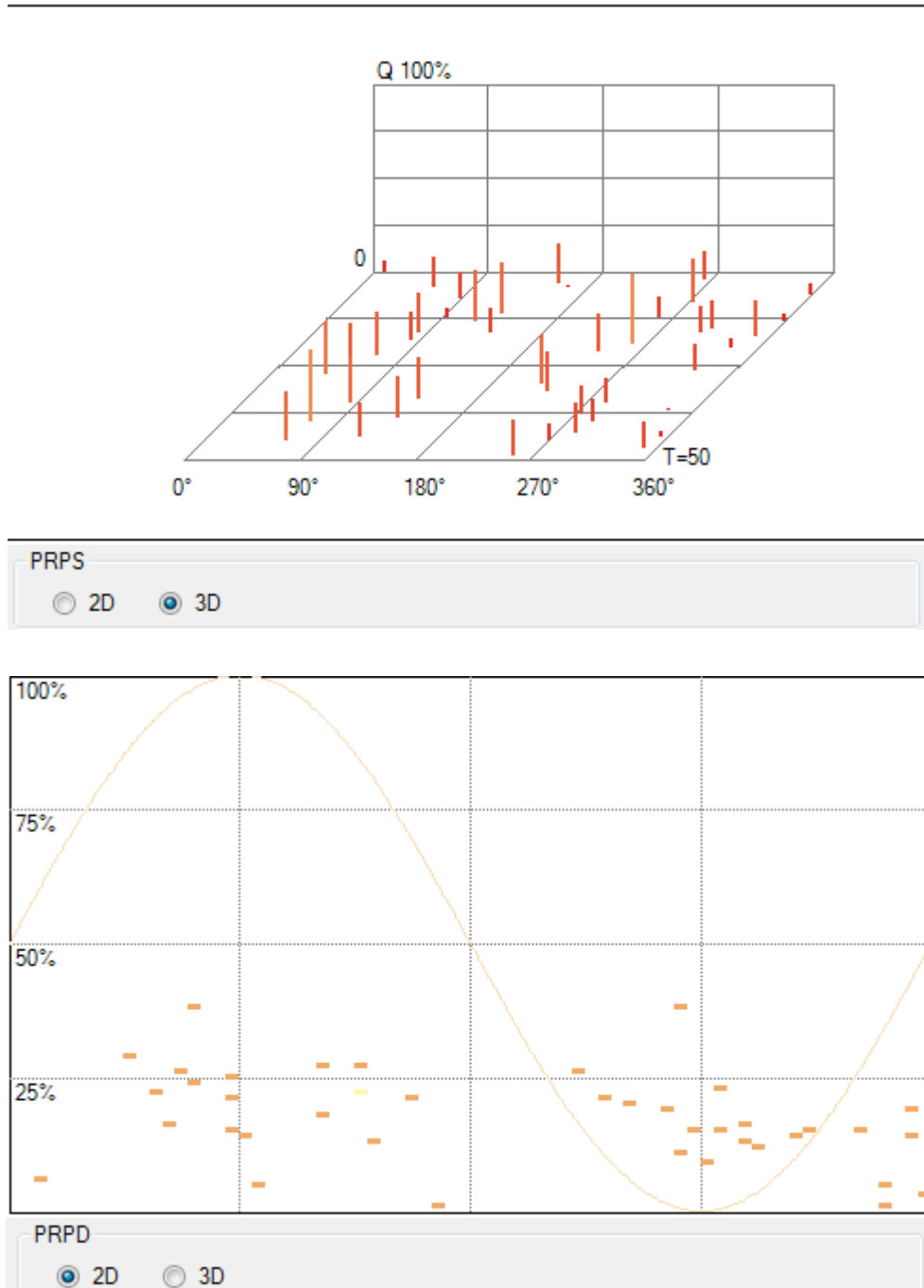


PHOTO.26 PARTICLE DISCHARGE PATTERN 6

FINGER PRINT OF PARTIAL DISCHARGE

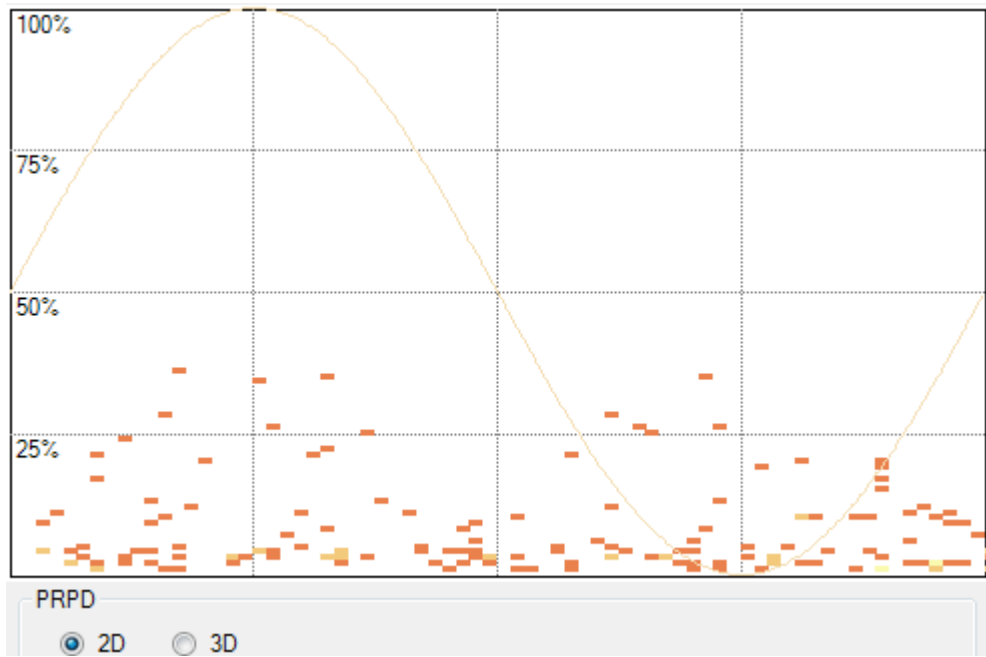
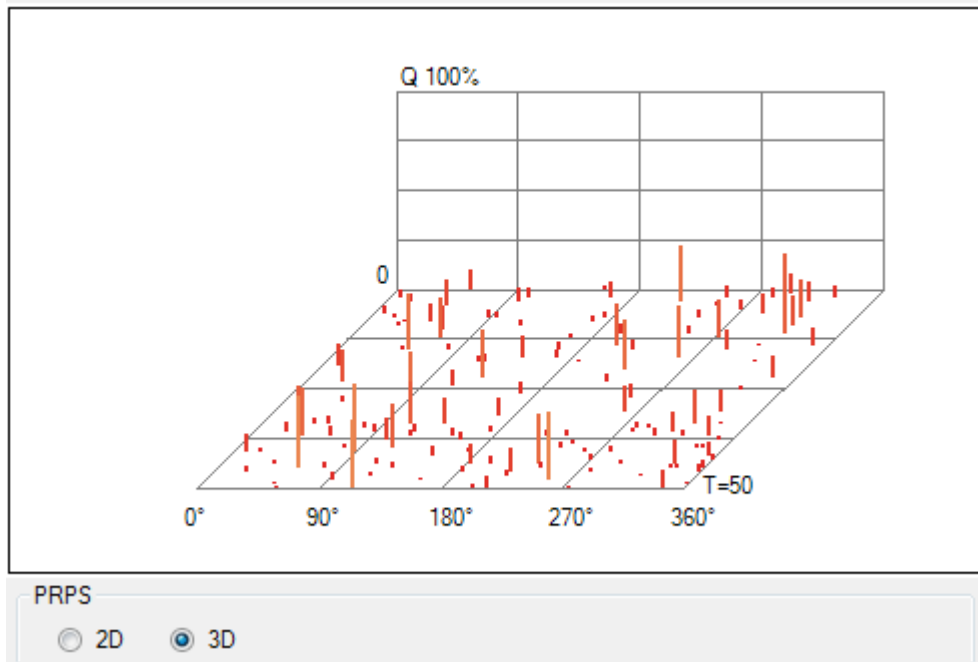


PHOTO.27 PARTICLE DISCHARGE PATTERN 7

FINGER PRINT OF PARTIAL DISCHARGE

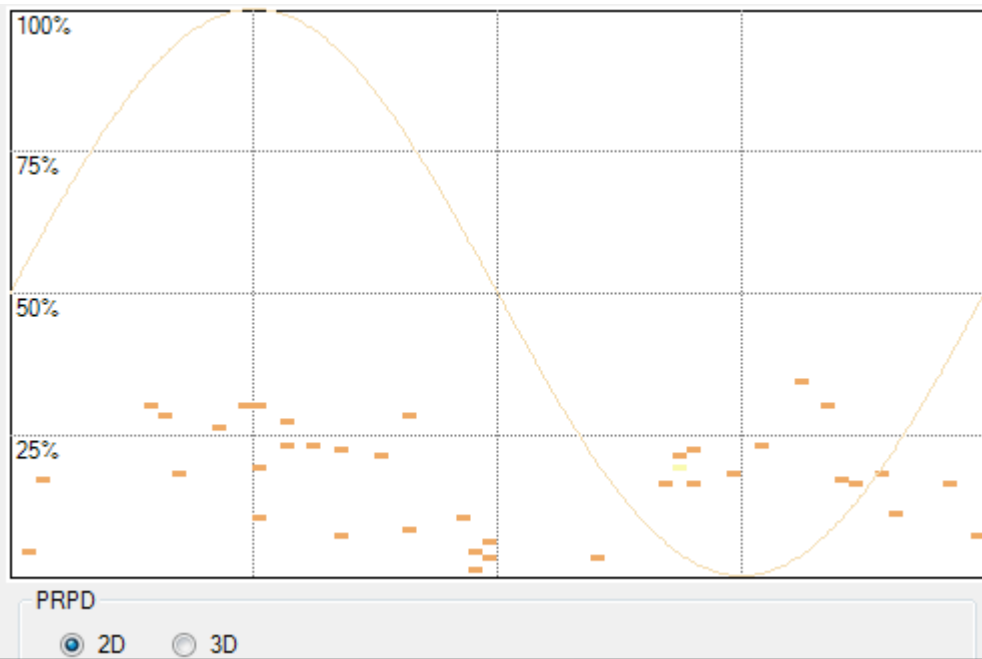
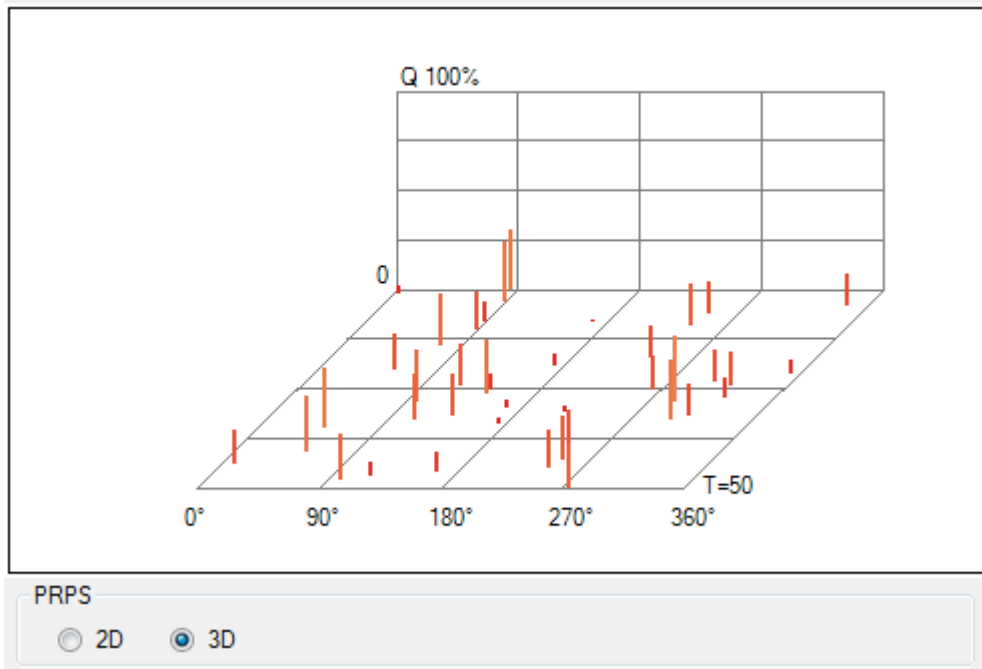


PHOTO.28 PARTICLE DISCHARGE PATTERN 8

FINGER PRINT OF PARTIAL DISCHARGE

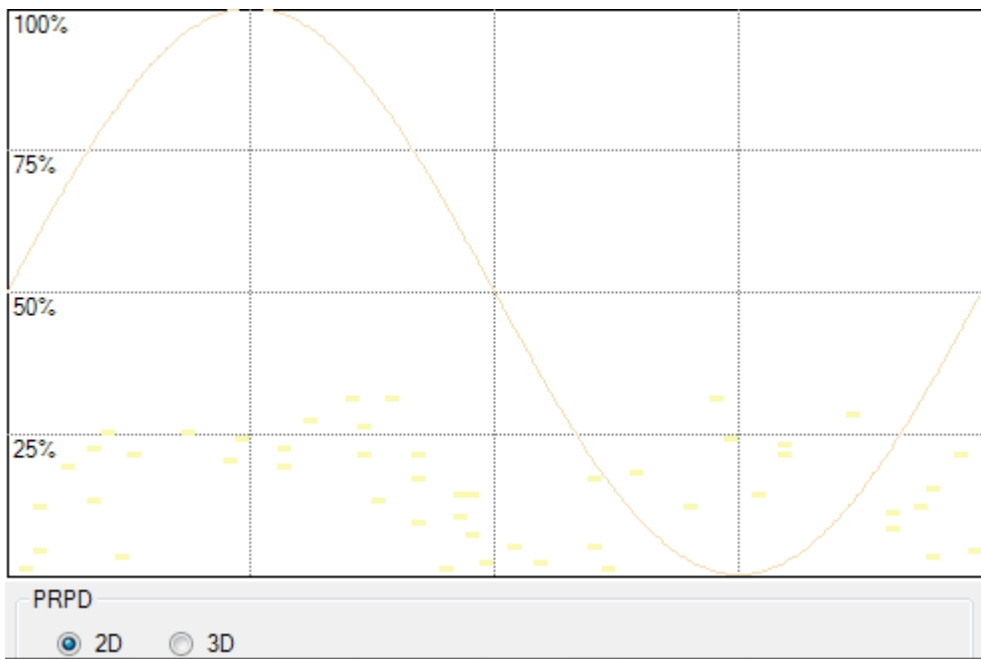
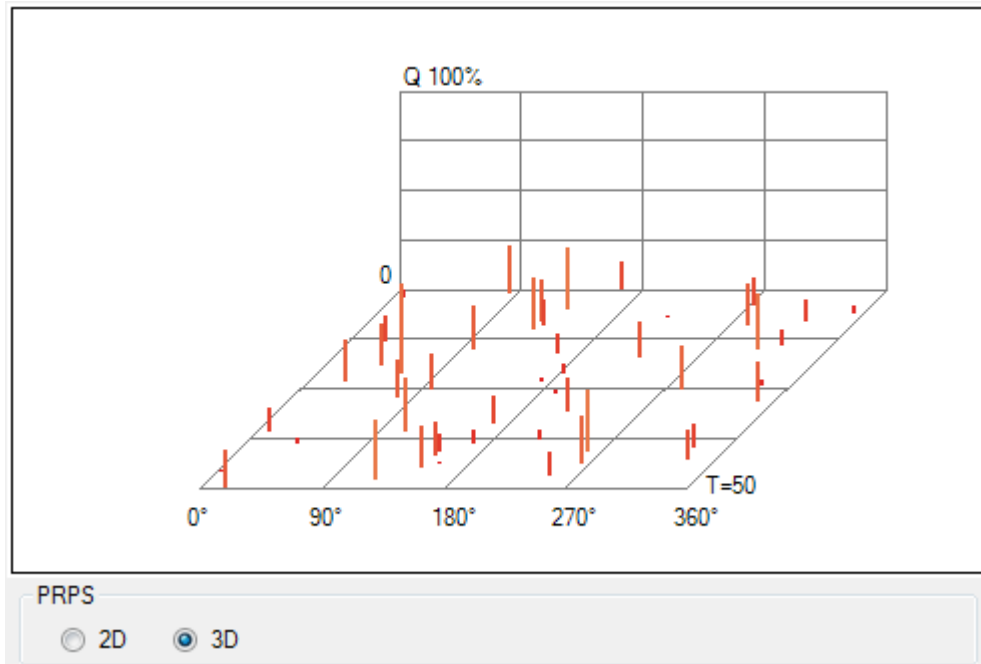


PHOTO.29 PARTICLE DISCHARGE PATTERN 9

FINGER PRINT OF PARTIAL DISCHARGE

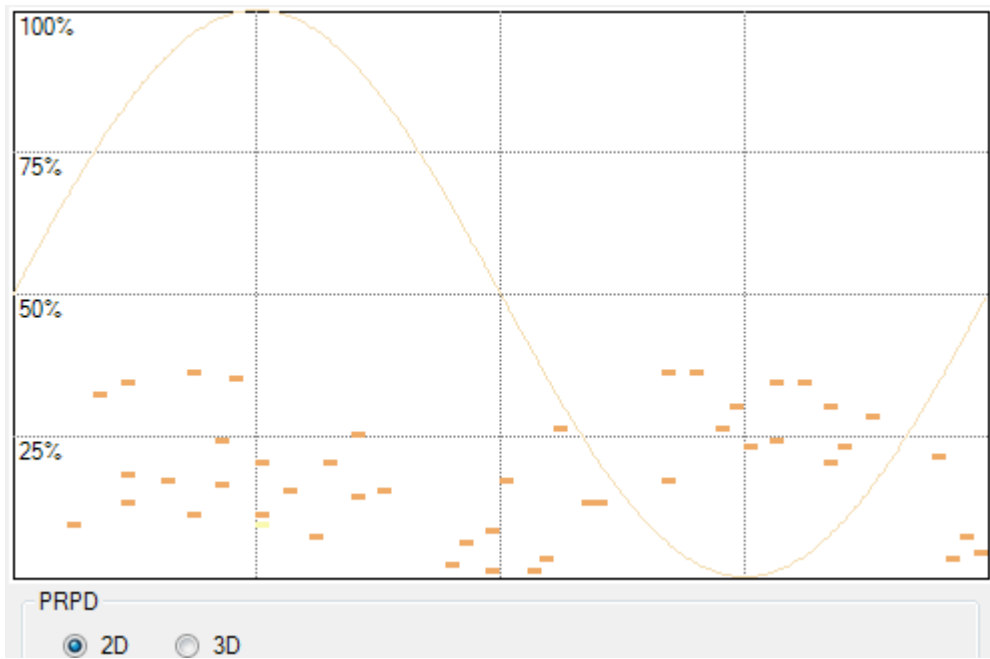
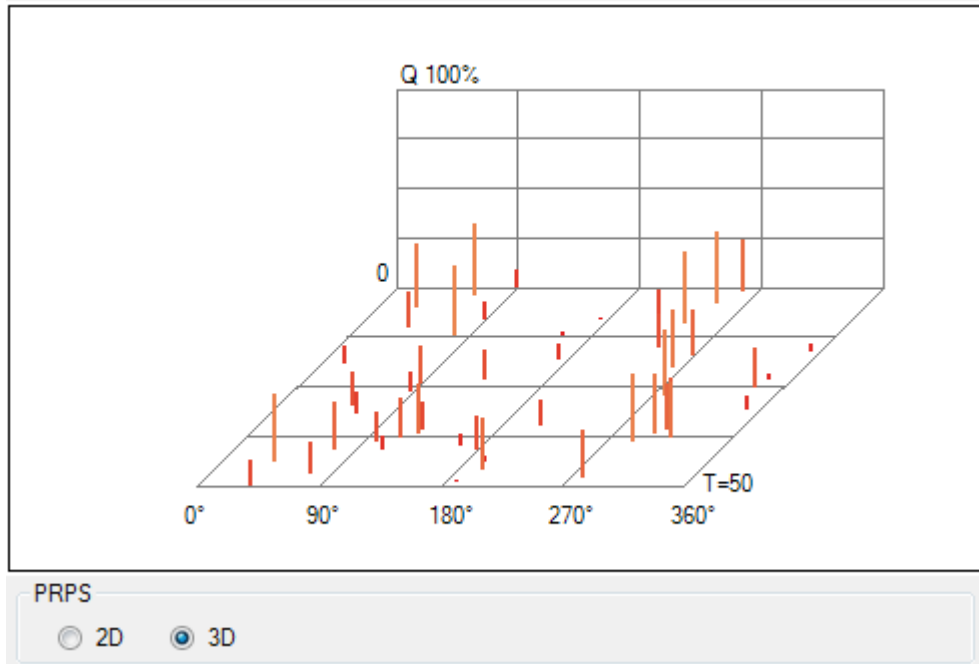


PHOTO.30 PARTICLE DISCHARGE PATTERN 10

FINGER PRINT OF PARTIAL DISCHARGE

4. Finger print of surface discharge

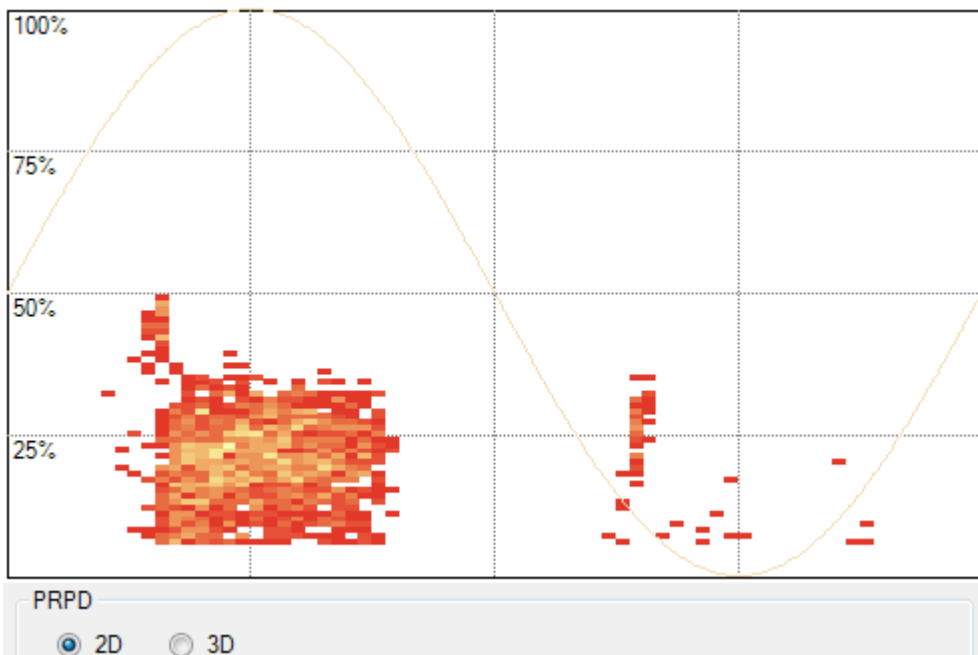
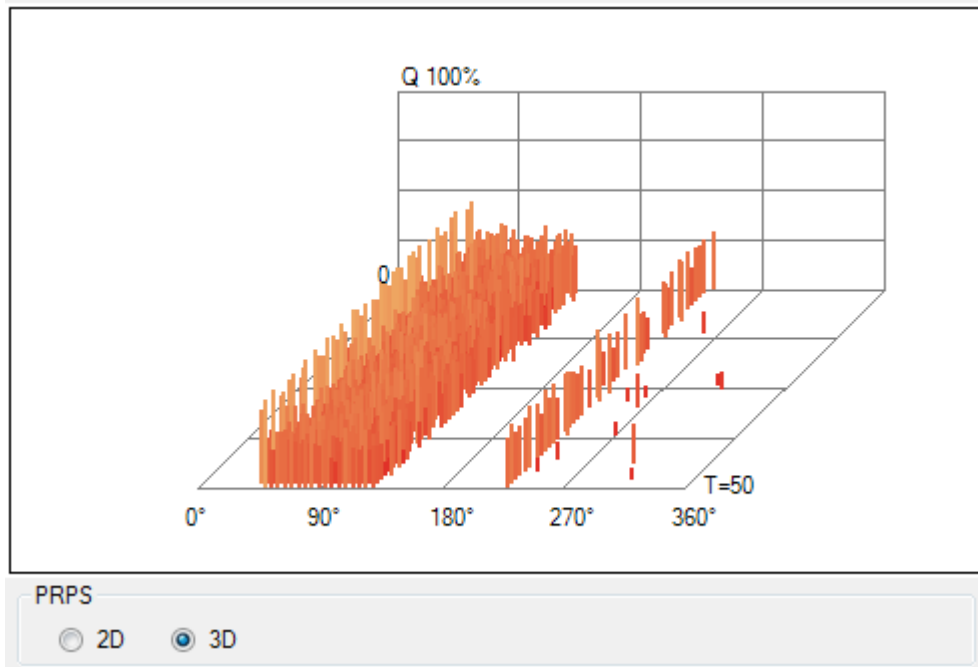


PHOTO.31 SURFACE DISCHARGE PATTERN 1

FINGER PRINT OF PARTIAL DISCHARGE

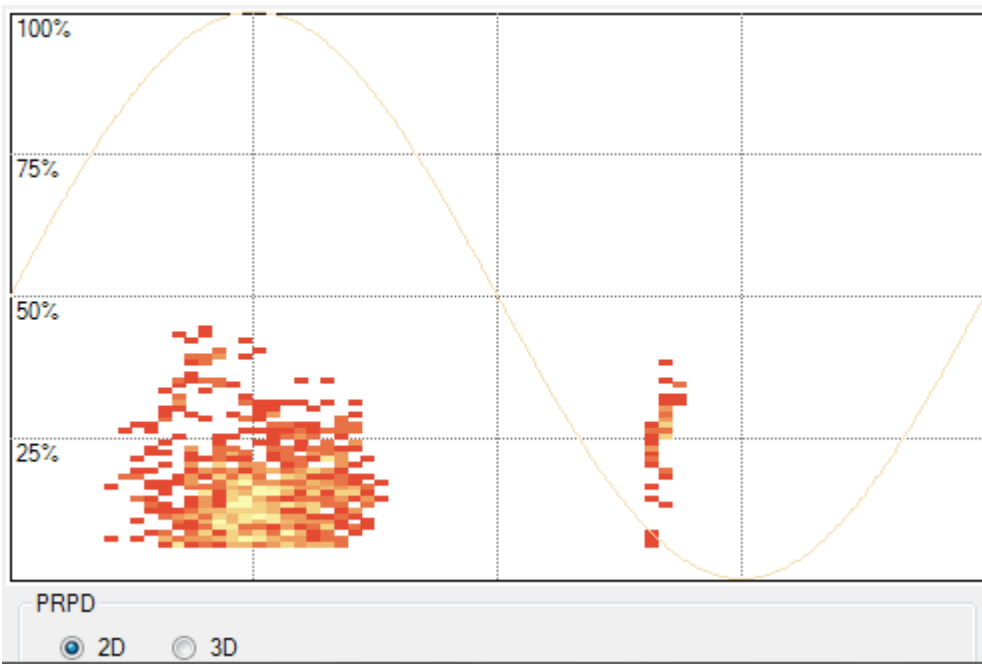
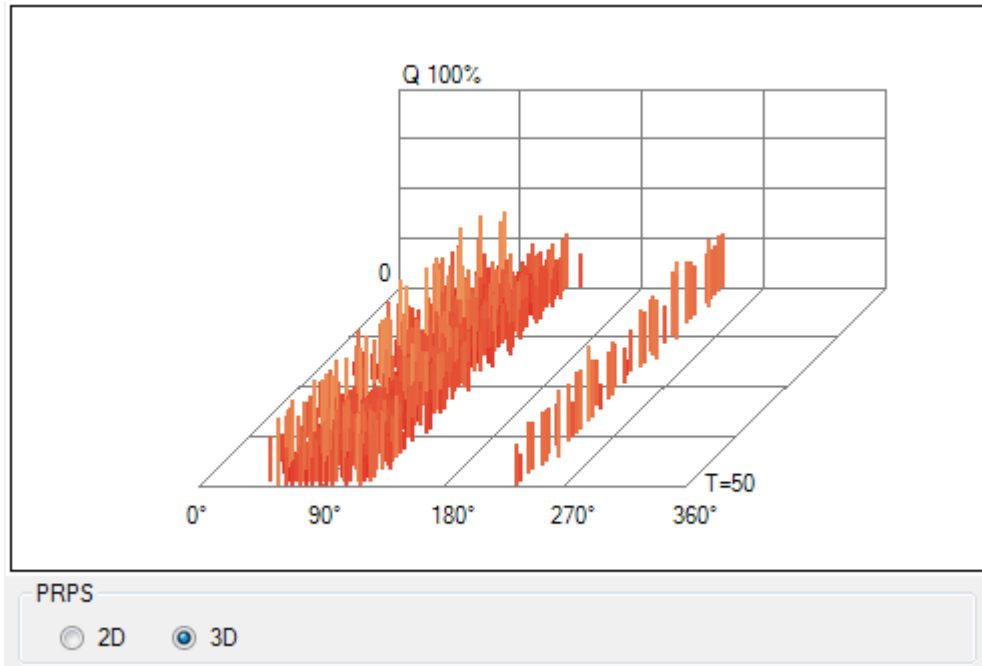


PHOTO.32 SURFACE DISCHARGE PATTERN 2

FINGER PRINT OF PARTIAL DISCHARGE

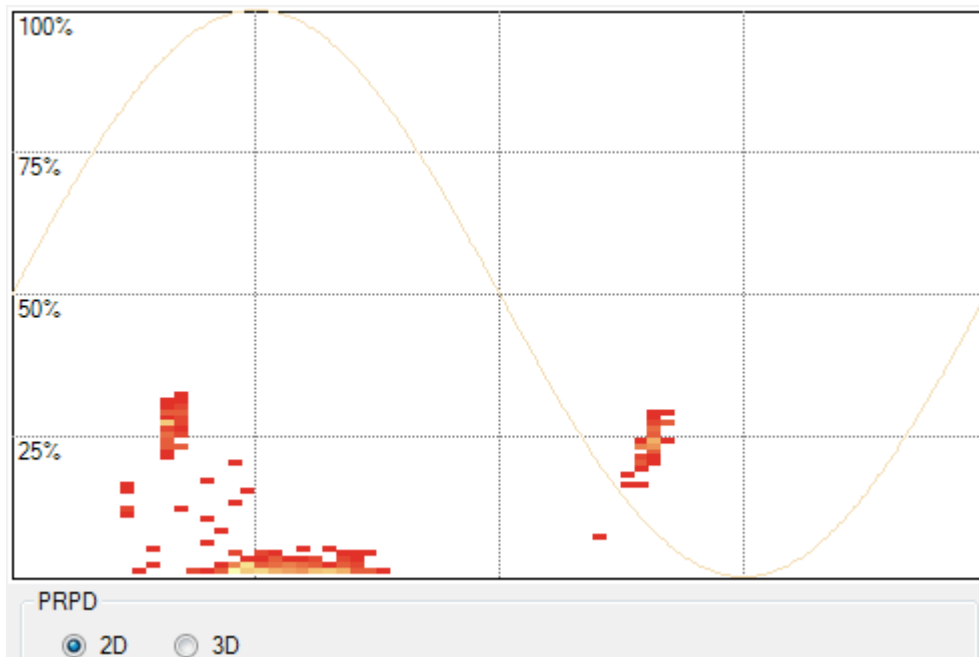
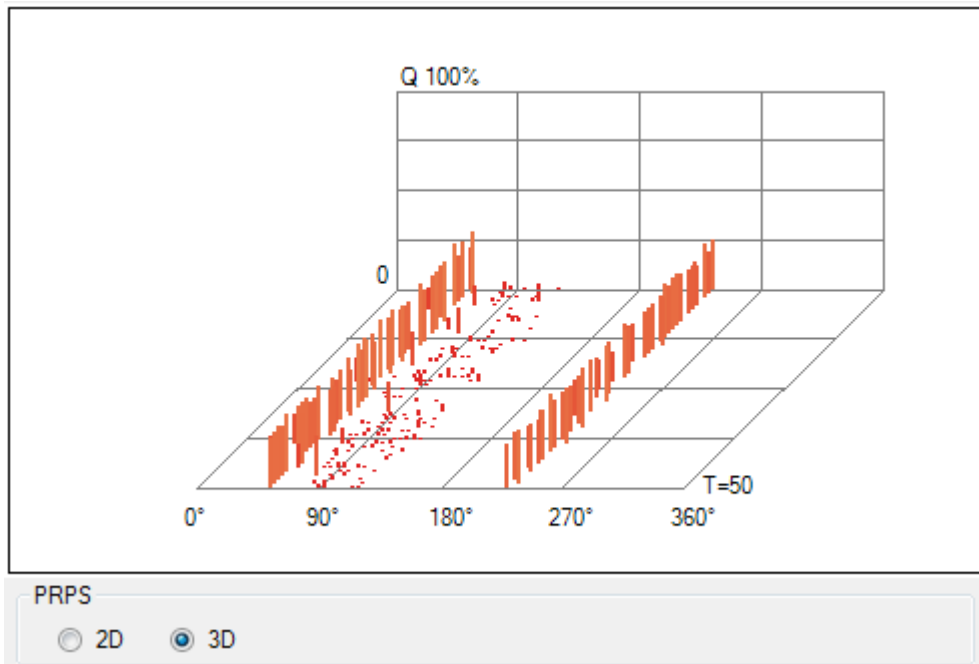


PHOTO.33 SURFACE DISCHARGE PATTERN 3

FINGER PRINT OF PARTIAL DISCHARGE

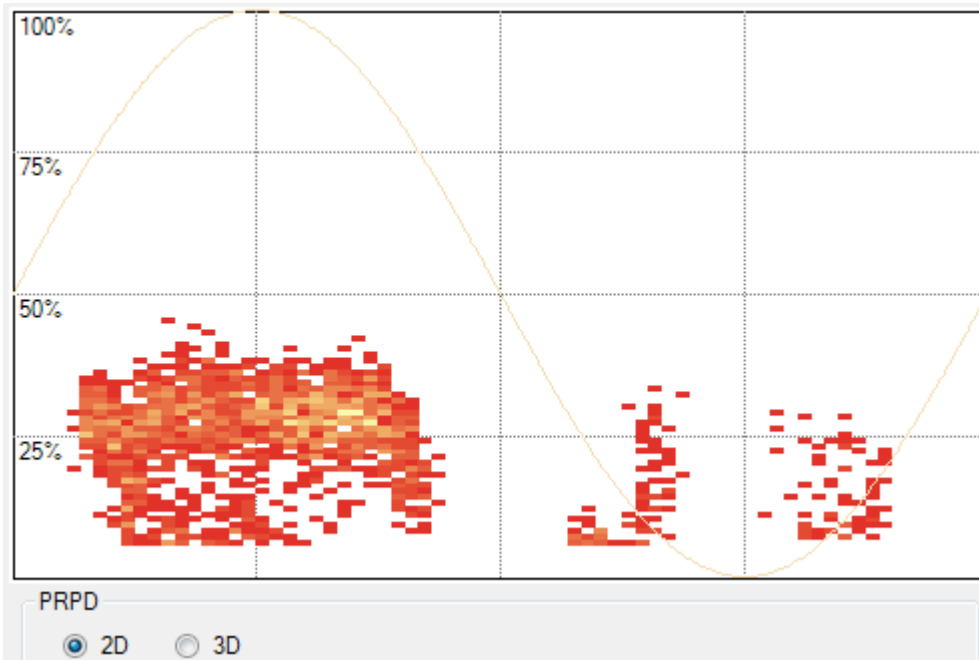
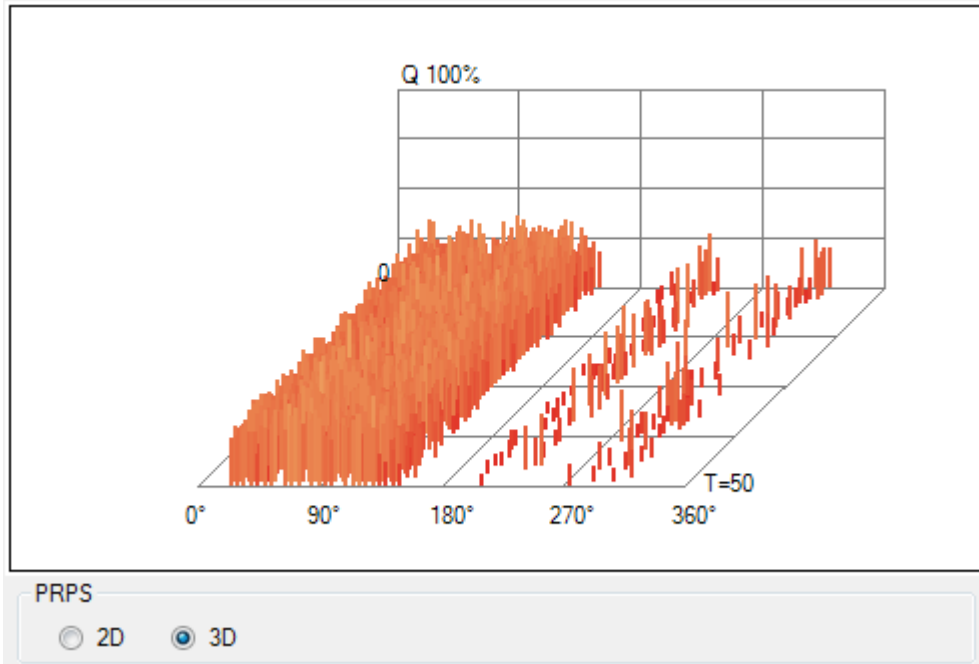


PHOTO.34 SURFACE DISCHARGE PATTERN 4

FINGER PRINT OF PARTIAL DISCHARGE

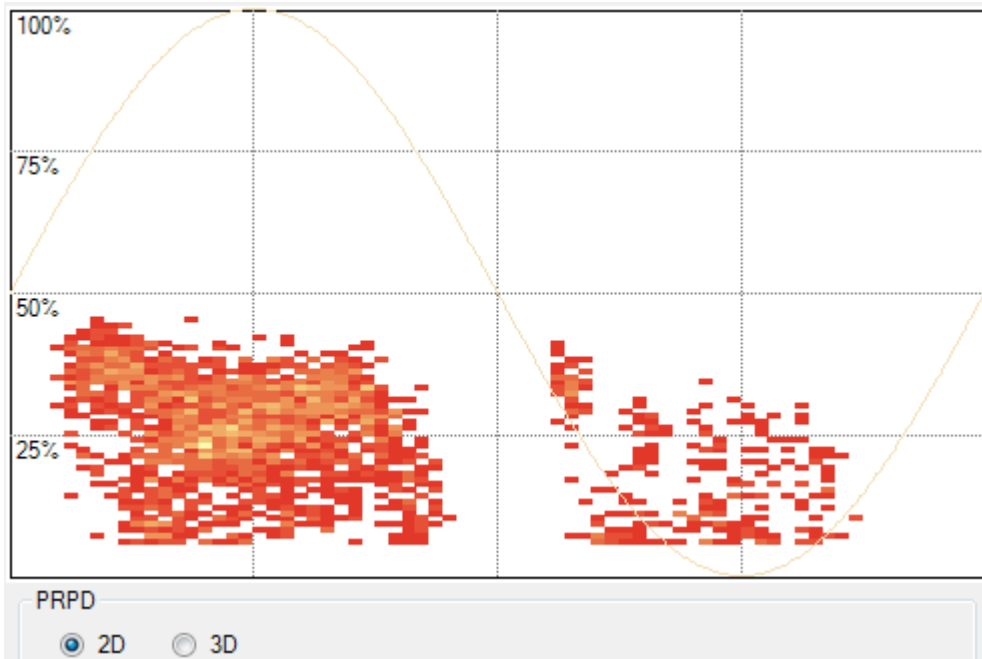
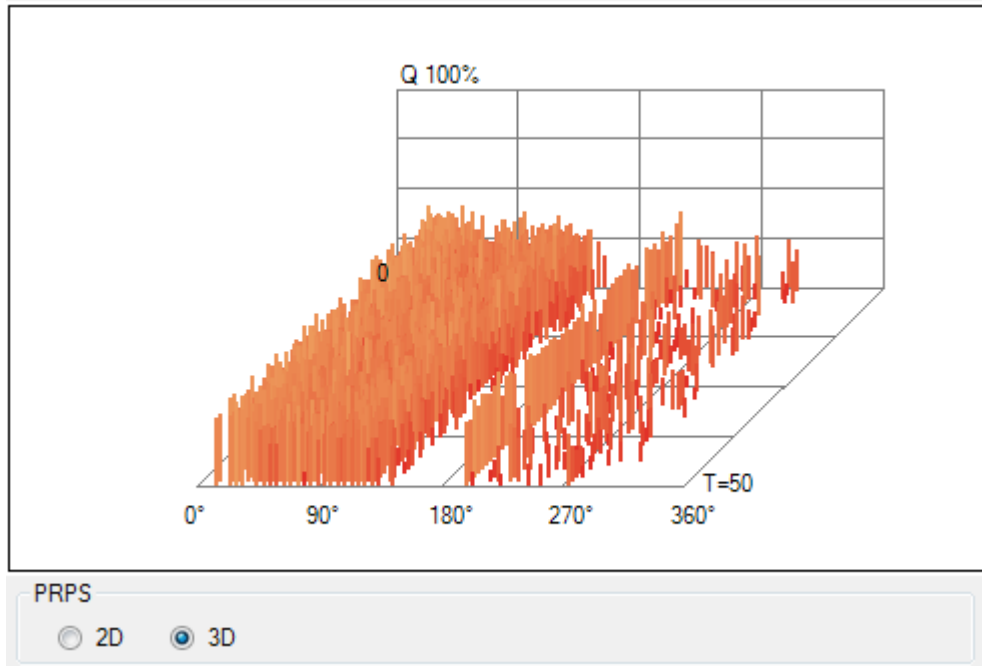


PHOTO.35 SURFACE DISCHARGE PATTERN 5

FINGER PRINT OF PARTIAL DISCHARGE

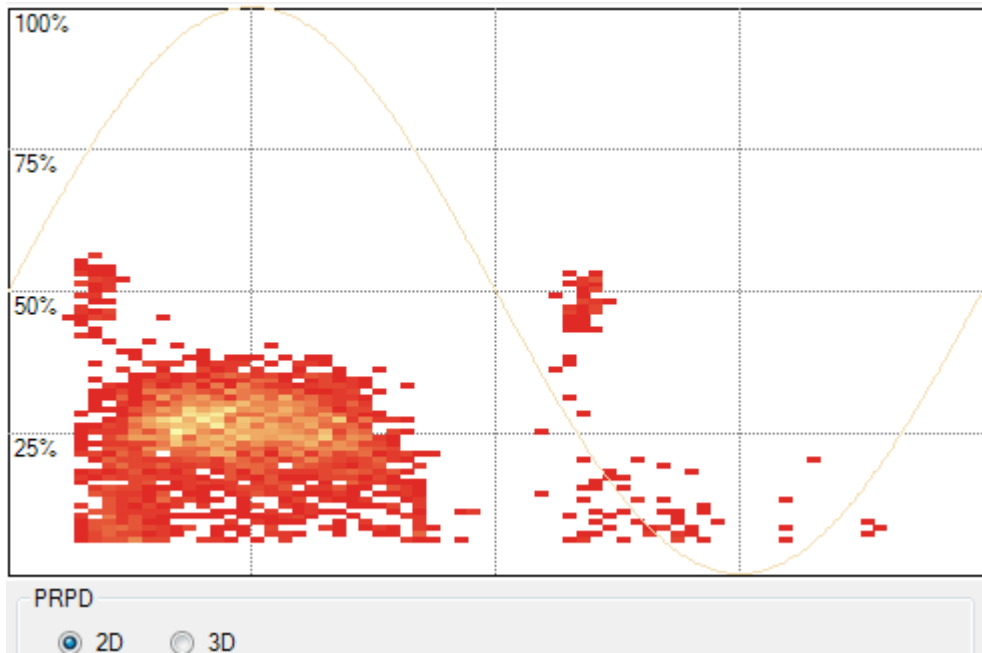
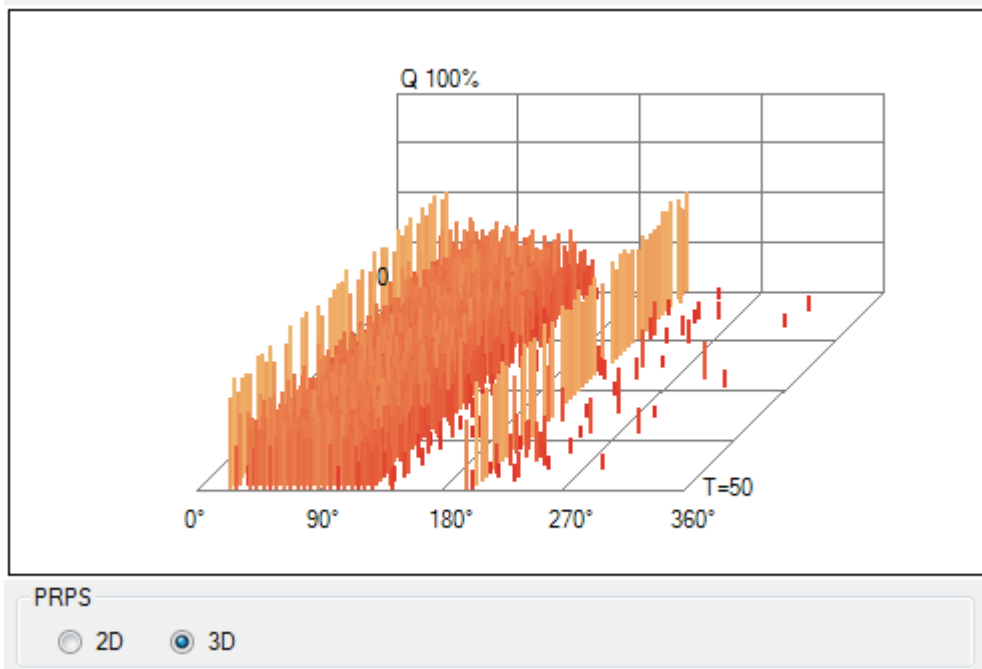


PHOTO.36 SURFACE DISCHARGE PATTERN 6

FINGER PRINT OF PARTIAL DISCHARGE

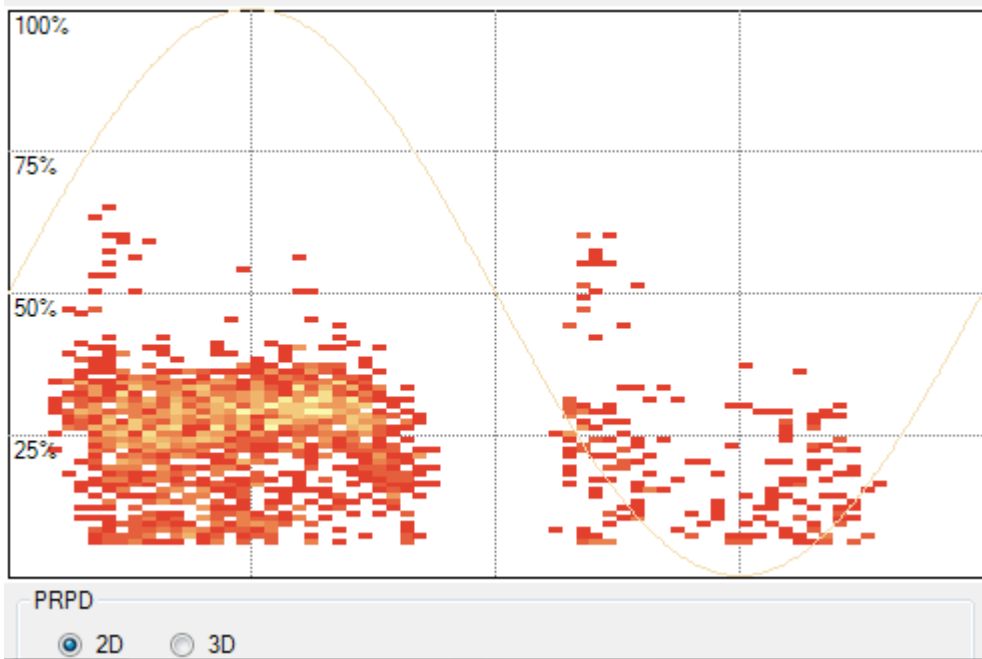
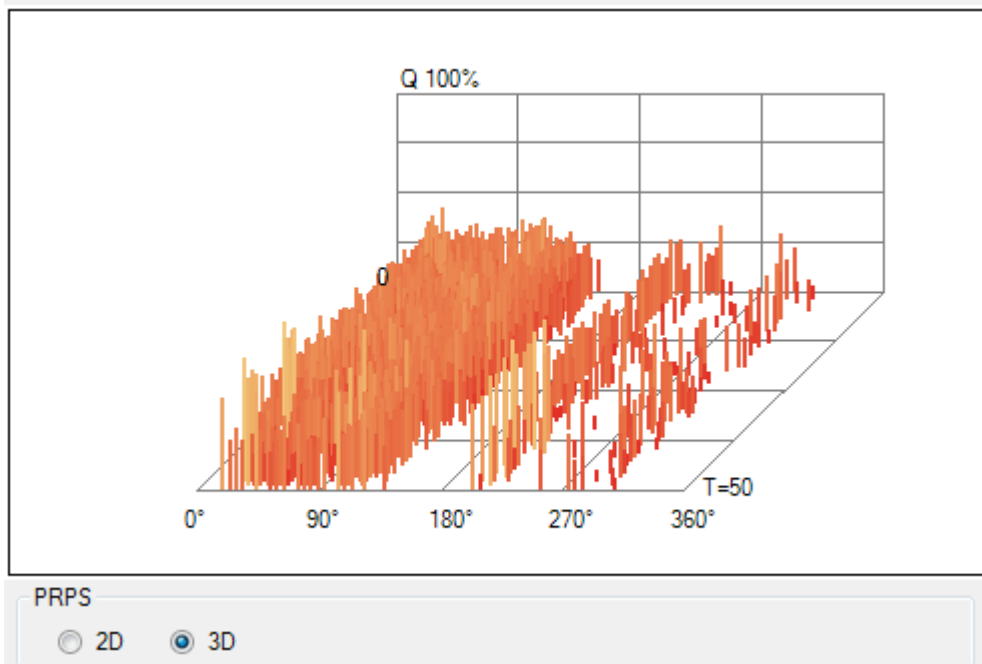


PHOTO.37 SURFACE DISCHARGE PATTERN 7

FINGER PRINT OF PARTIAL DISCHARGE

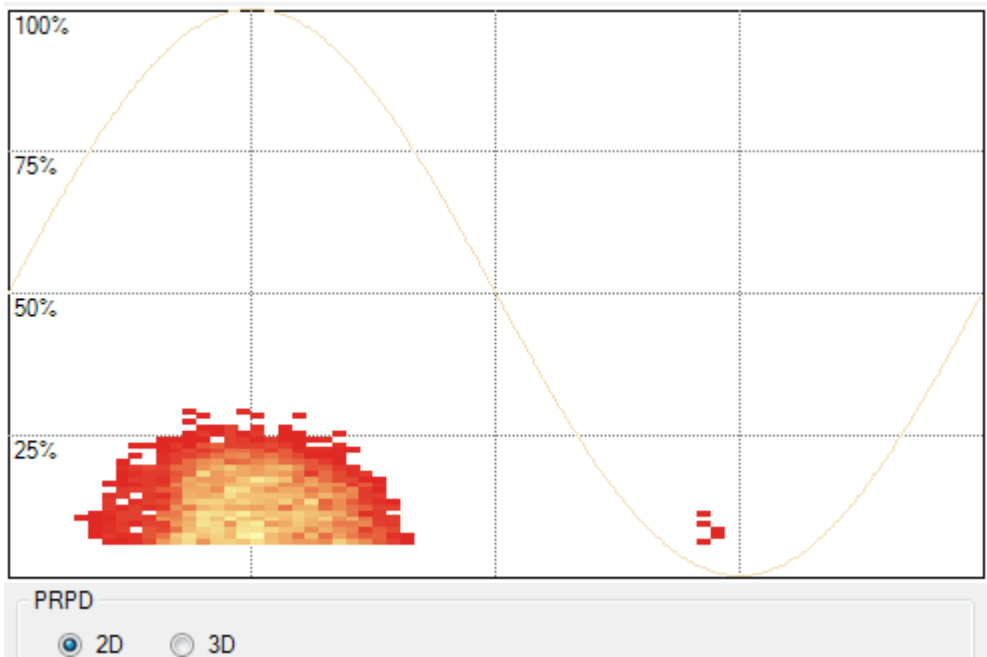
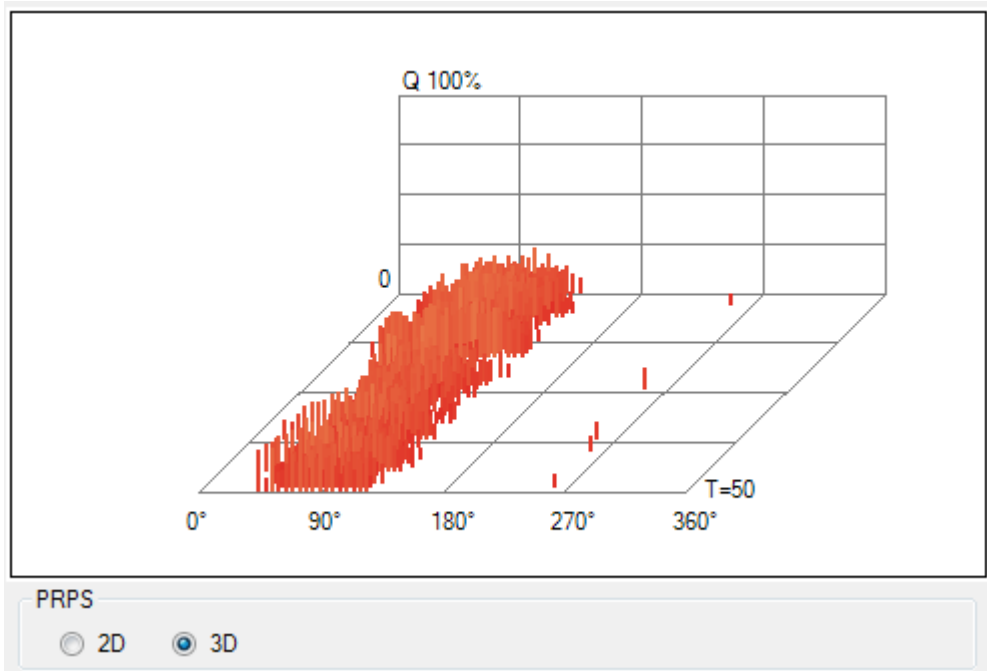


PHOTO.38 SURFACE DISCHARGE PATTERN 8

FINGER PRINT OF PARTIAL DISCHARGE

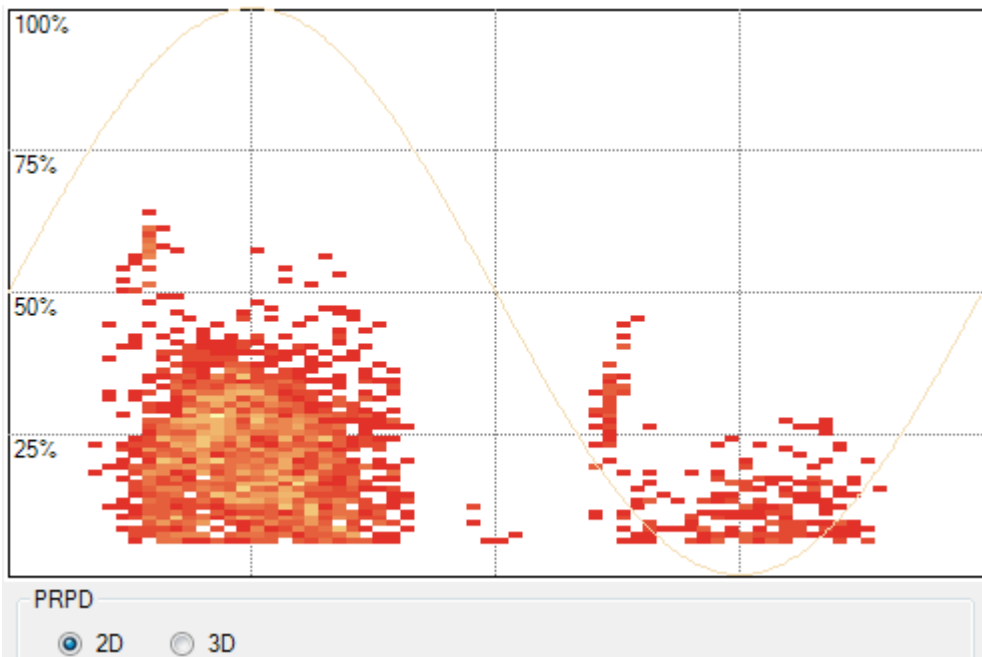
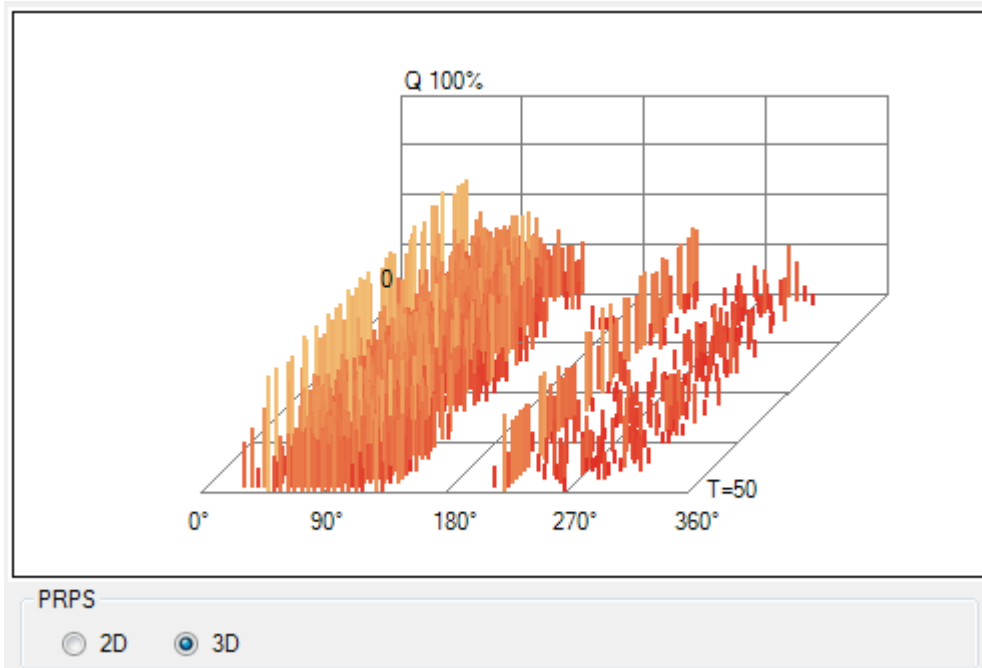


PHOTO.39 SURFACE DISCHARGE PATTERN 9

FINGER PRINT OF PARTIAL DISCHARGE

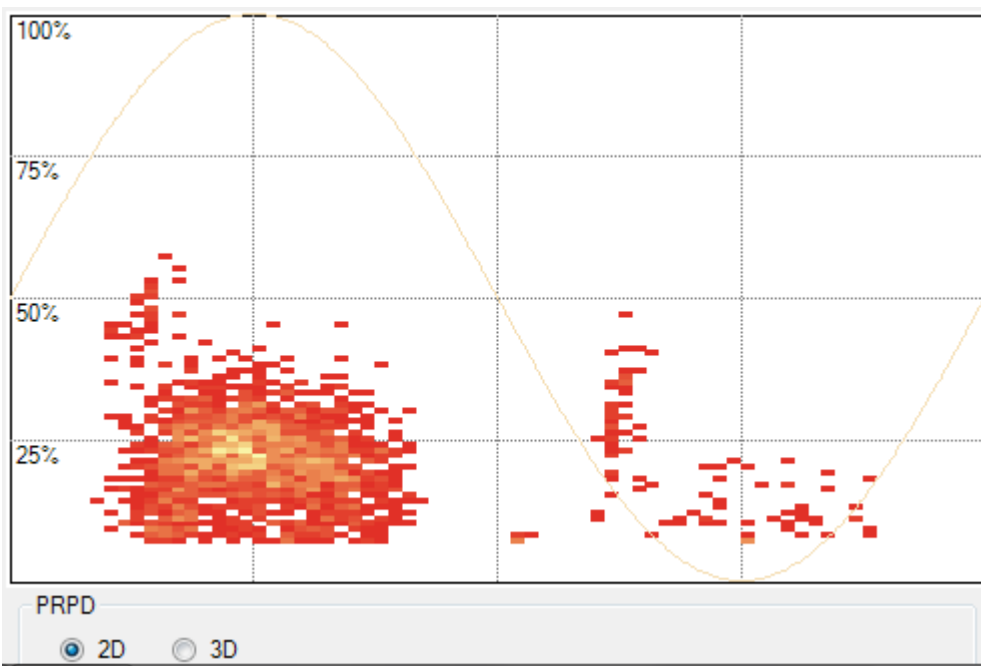
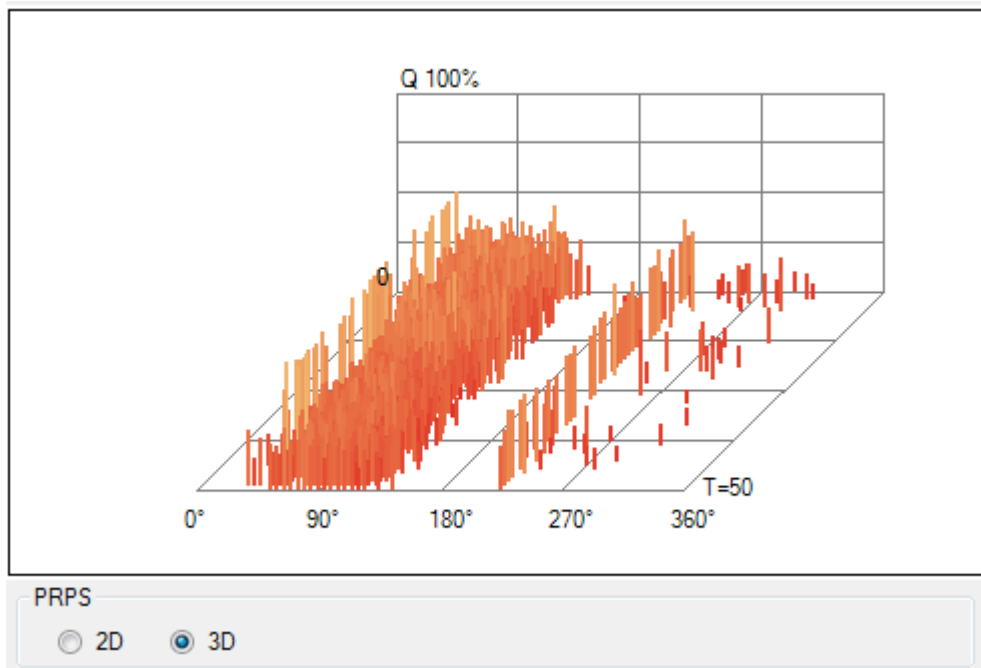


PHOTO.40 SURFACE DISCHARGE PATTERN 10

FINGER PRINT OF PARTIAL DISCHARGE

5. Finger print of internal discharge

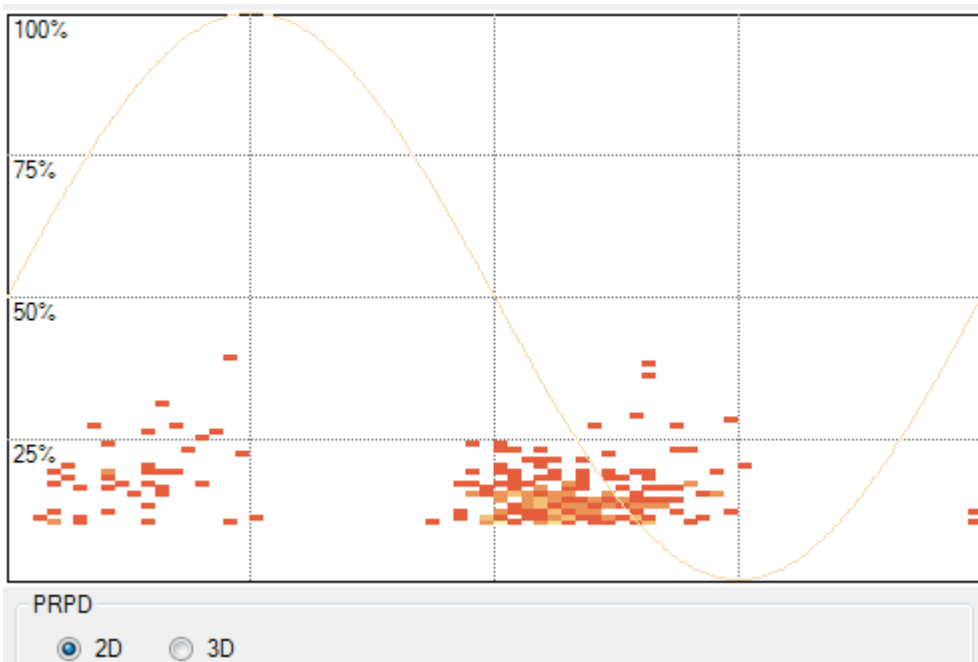
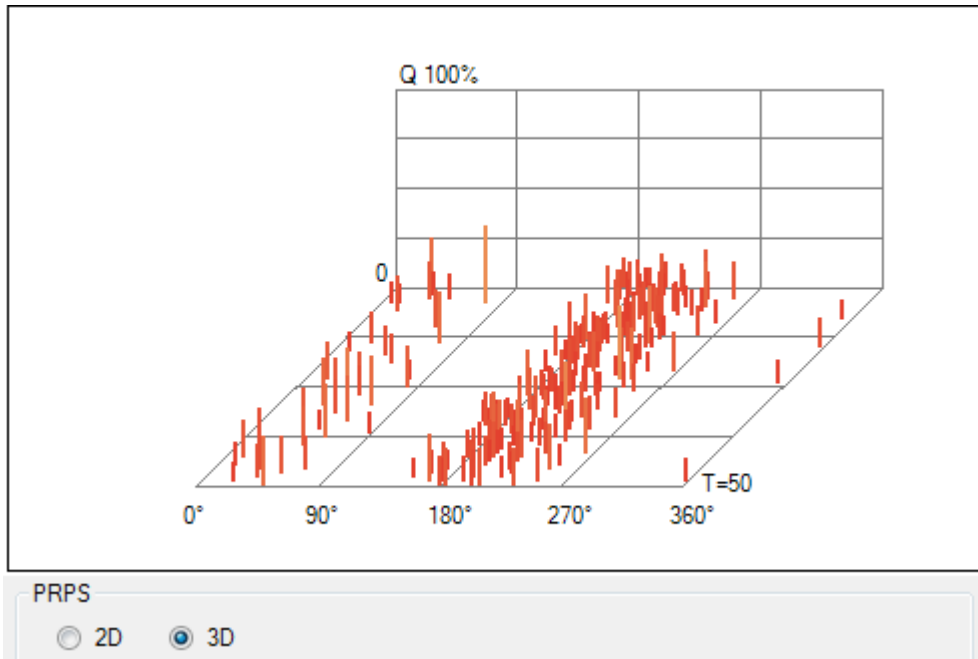


PHOTO.41 VOID OR INTERNAL DISCHARGE PATTERN 1

FINGER PRINT OF PARTIAL DISCHARGE

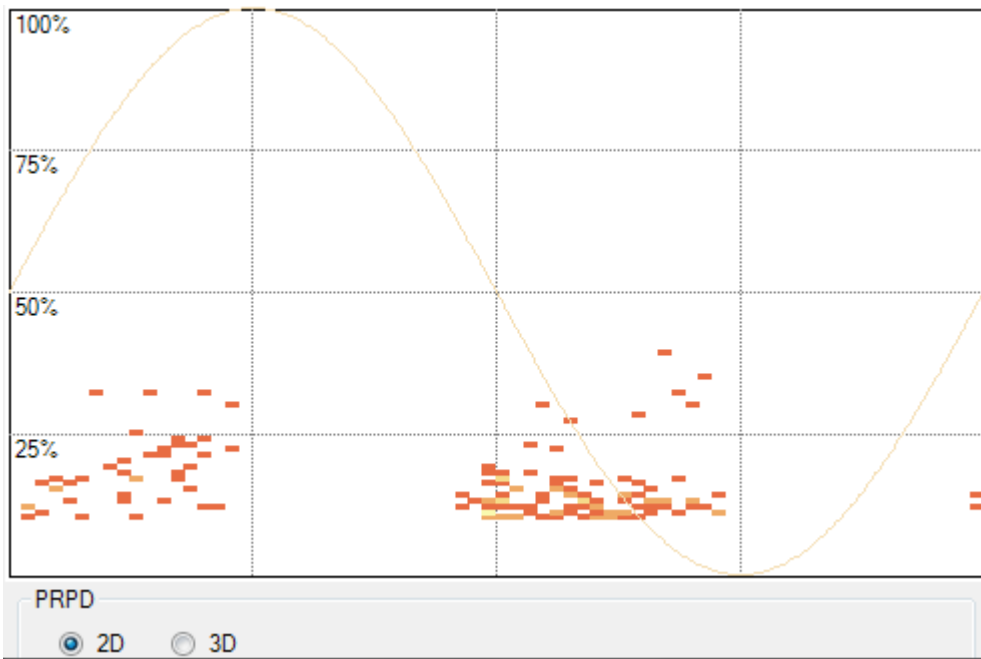
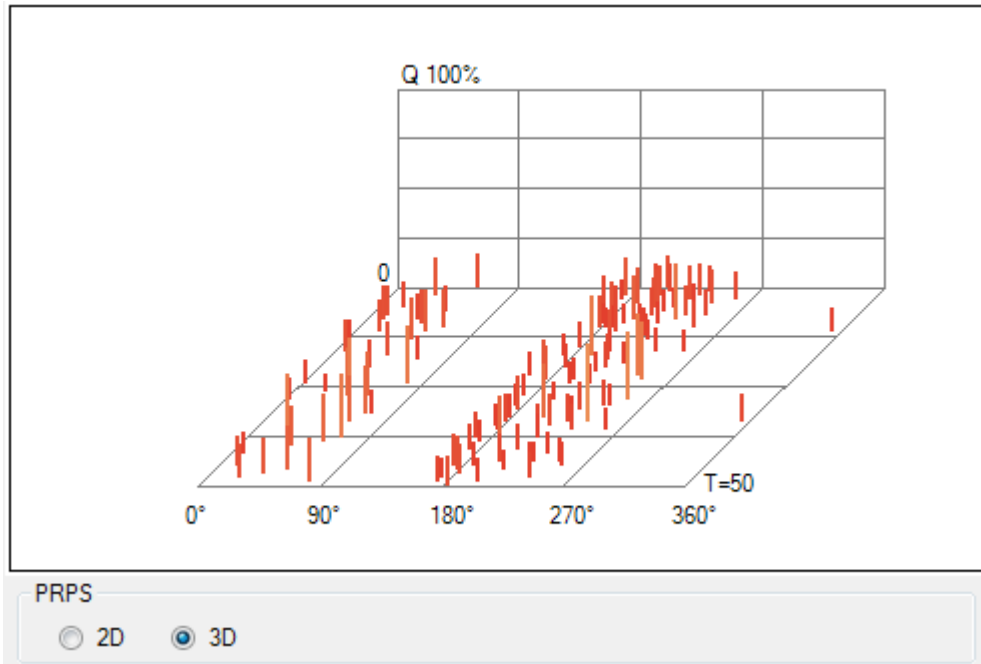


PHOTO.42 VOID OR INTERNAL DISCHARGE PATTERN 2

FINGER PRINT OF PARTIAL DISCHARGE

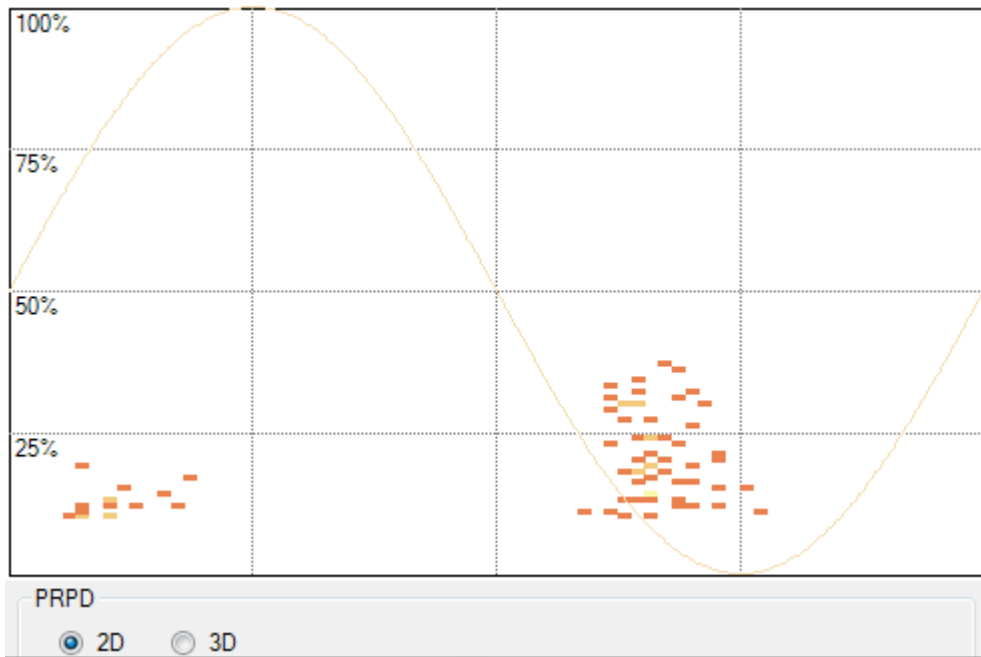
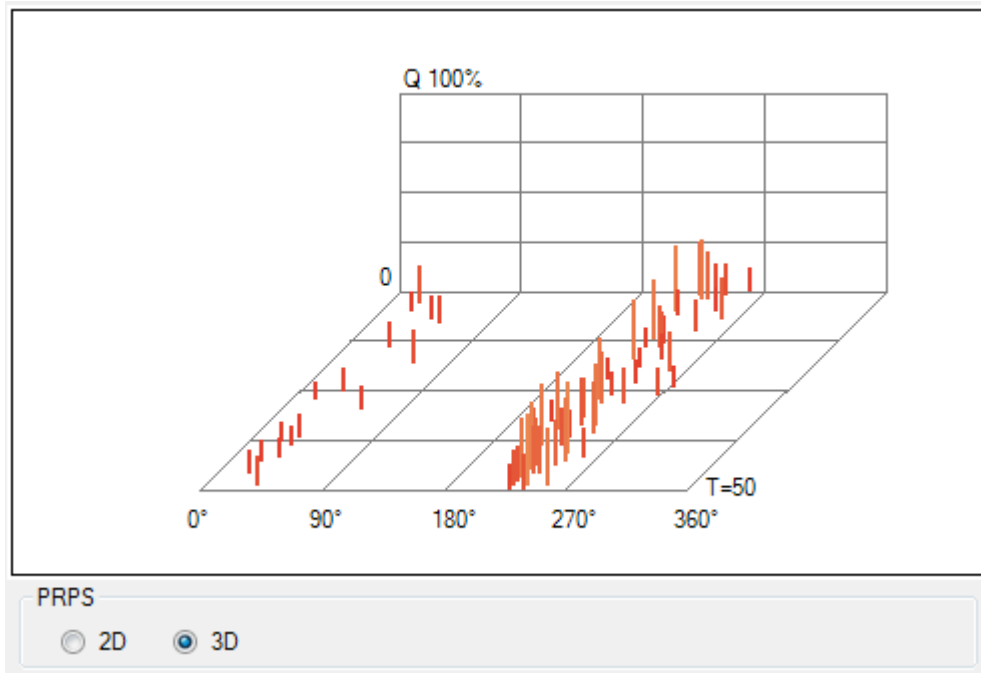


PHOTO.43 VOID OR INTERNAL DISCHARGE PATTERN 3

FINGER PRINT OF PARTIAL DISCHARGE

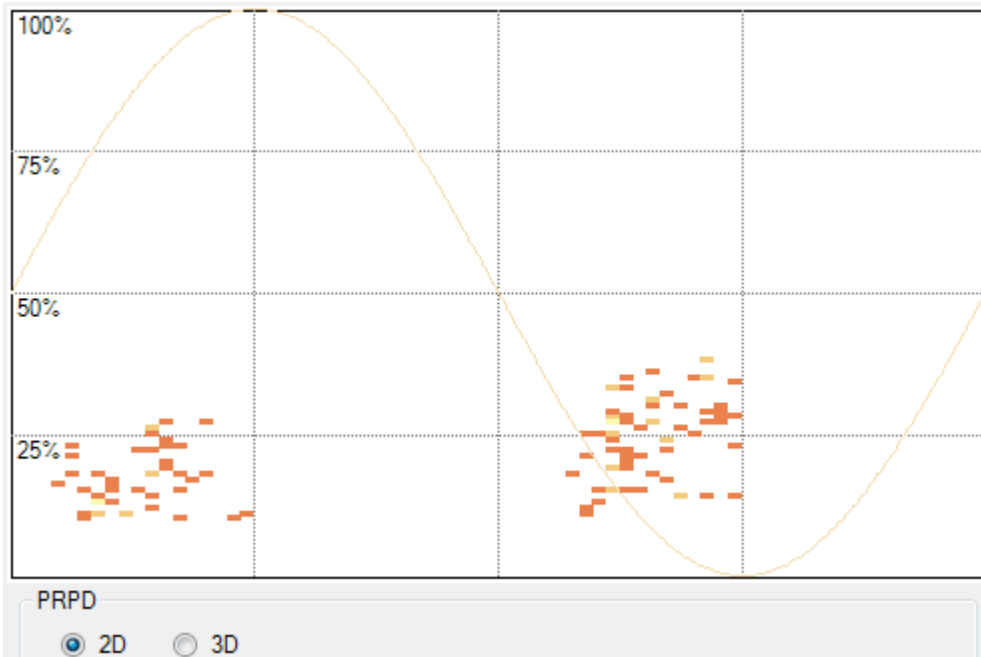
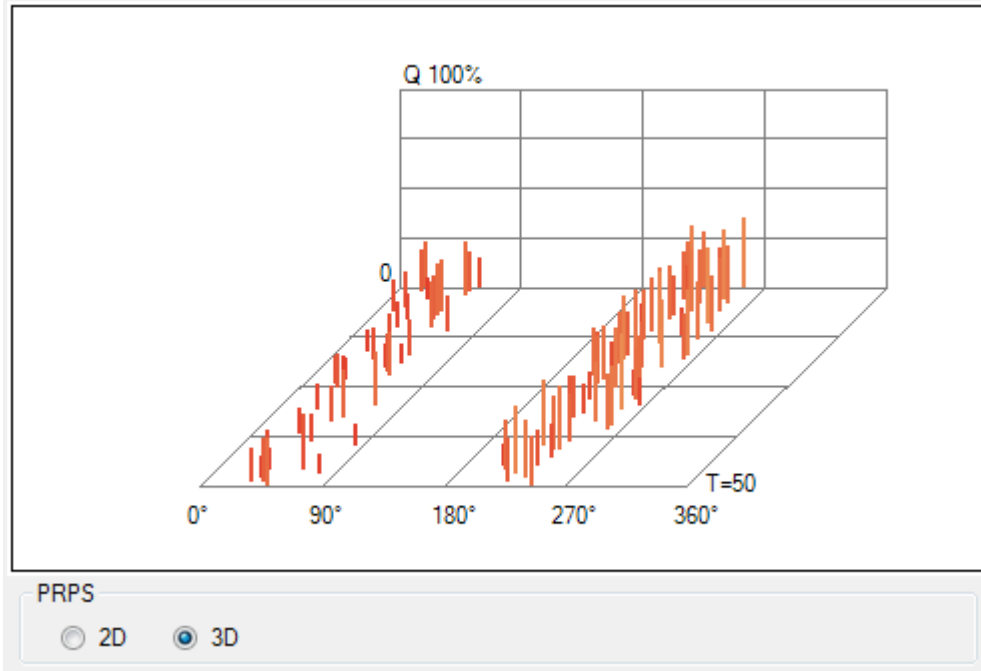


PHOTO.44 VOID OR INTERNAL DISCHARGE PATTERN 4

FINGER PRINT OF PARTIAL DISCHARGE

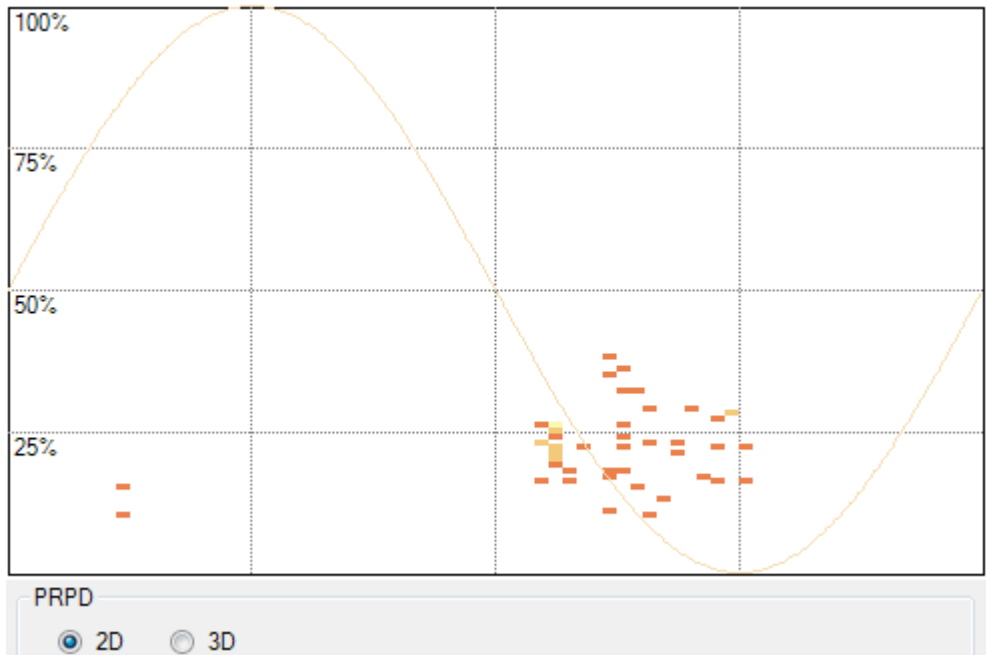
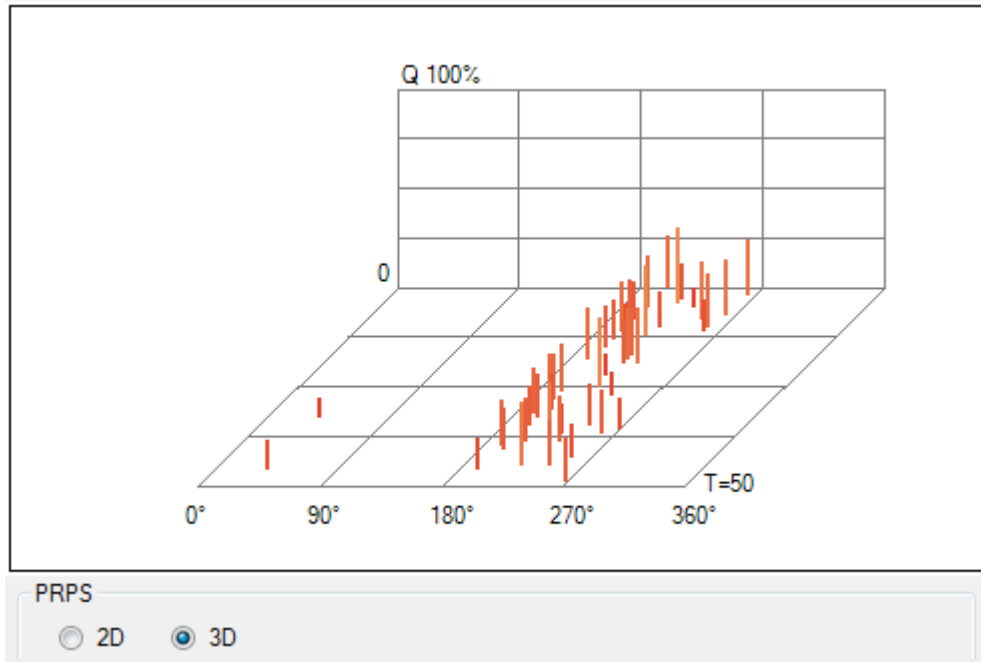


PHOTO.45 VOID OR INTERNAL DISCHARGE PATTERN 5

FINGER PRINT OF PARTIAL DISCHARGE

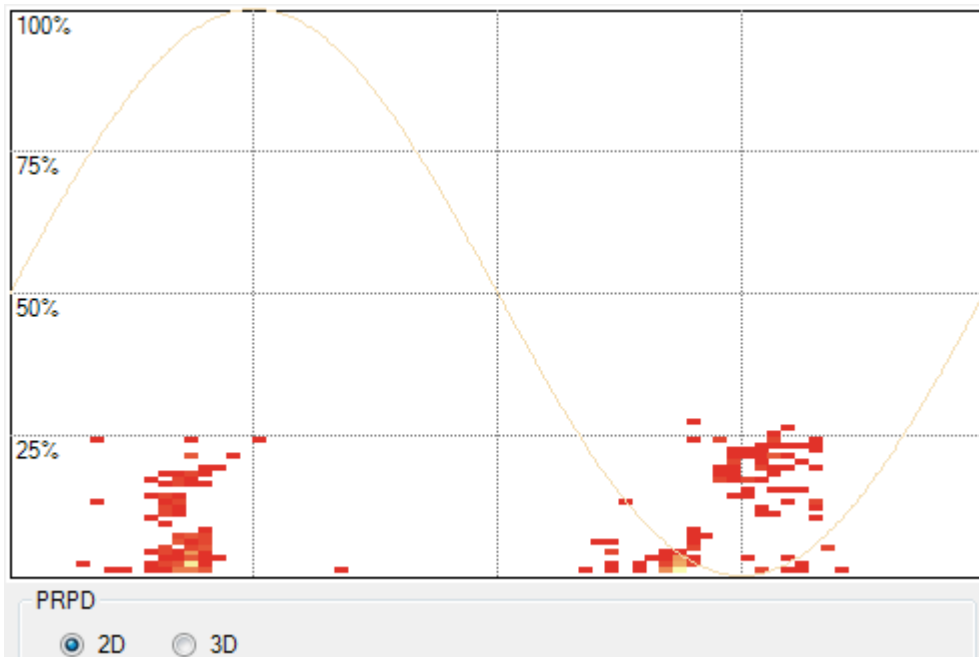
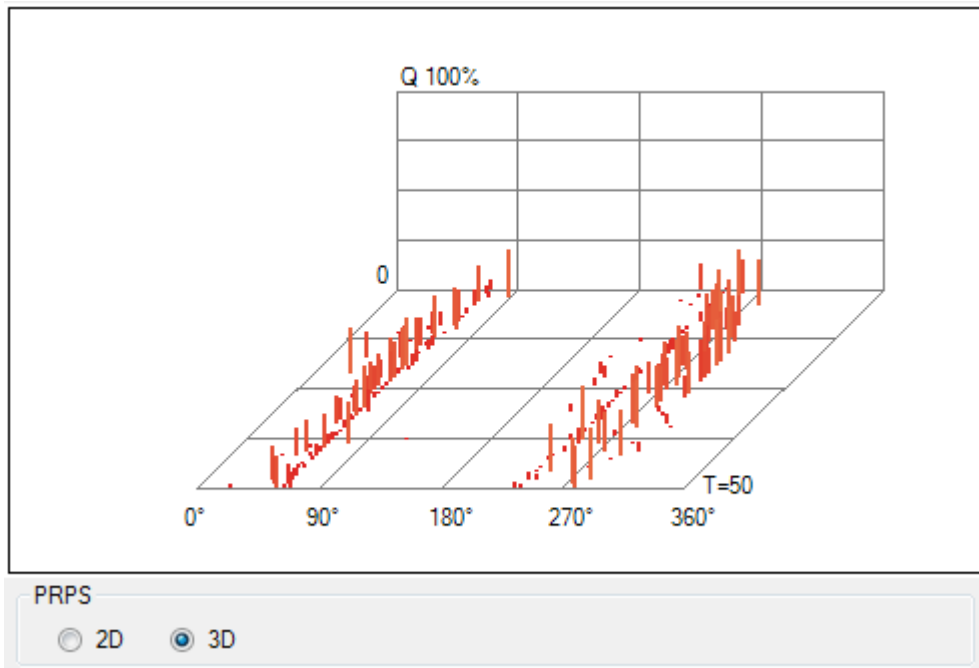


PHOTO.46 VOID OR INTERNAL DISCHARGE PATTERN 6

FINGER PRINT OF PARTIAL DISCHARGE

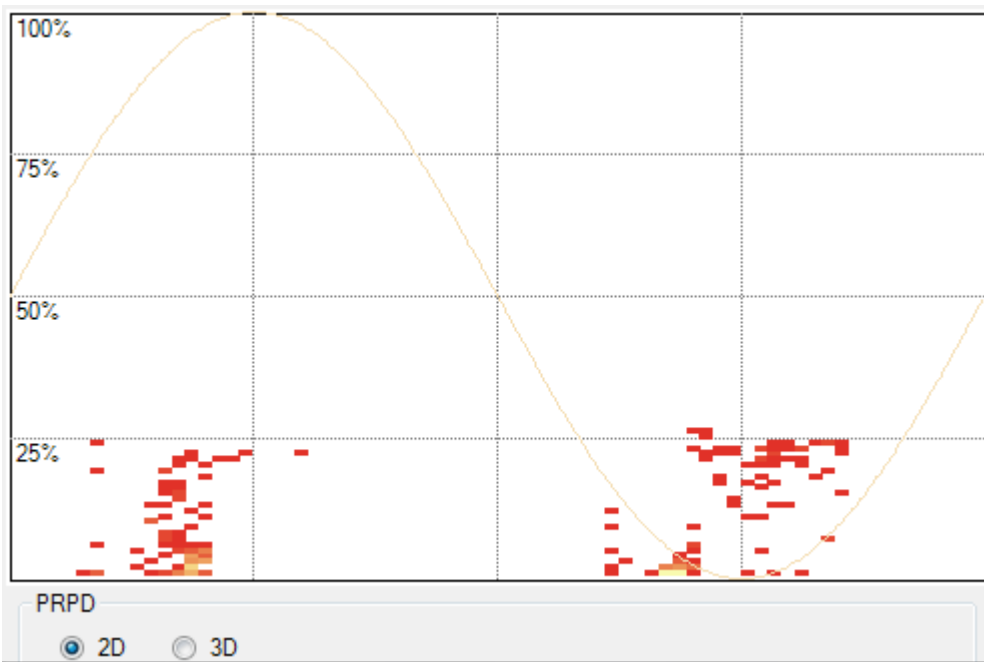
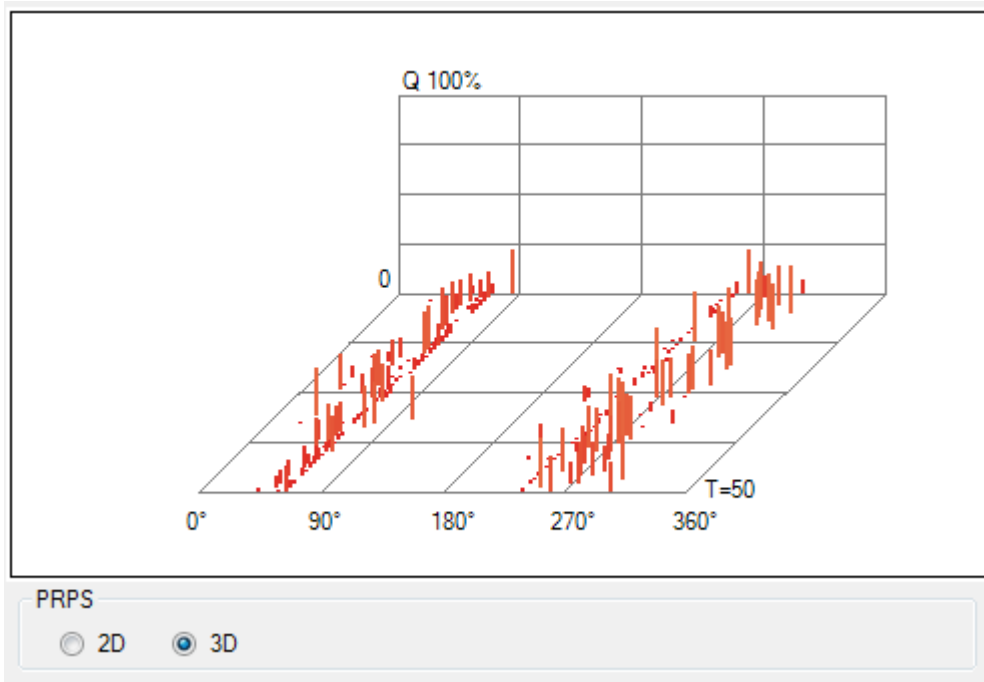


PHOTO.47 VOID OR INTERNAL DISCHARGE PATTERN 7

FINGER PRINT OF PARTIAL DISCHARGE

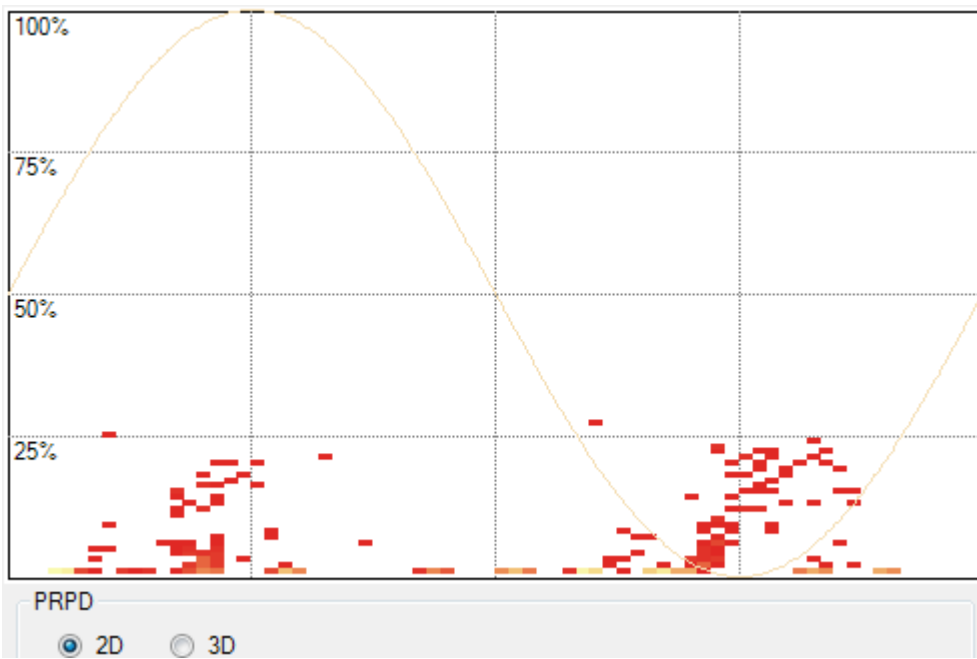
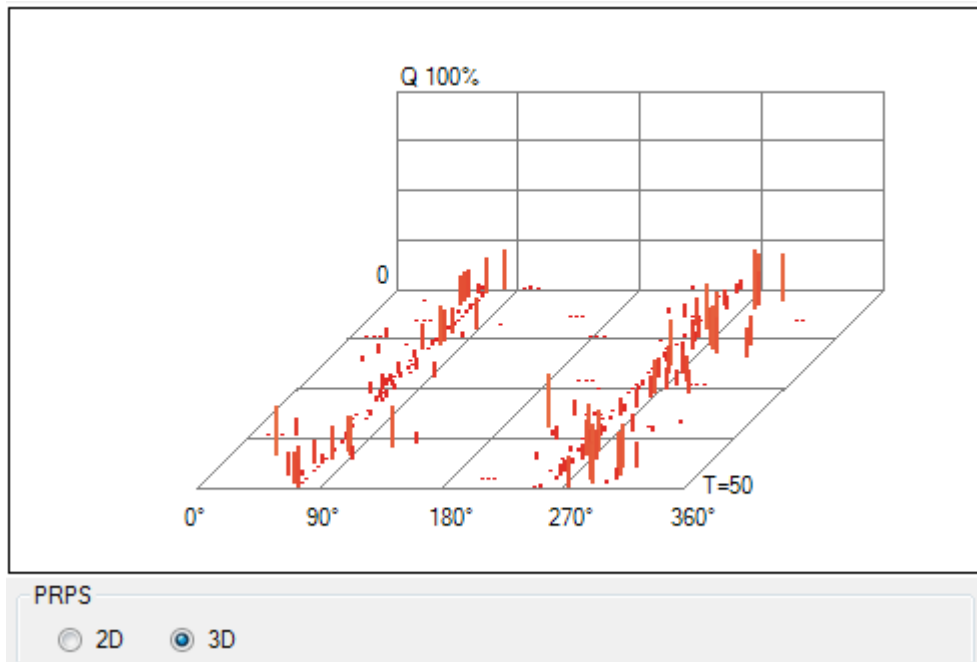


PHOTO.48 VOID OR INTERNAL DISCHARGE PATTERN 8

FINGER PRINT OF PARTIAL DISCHARGE

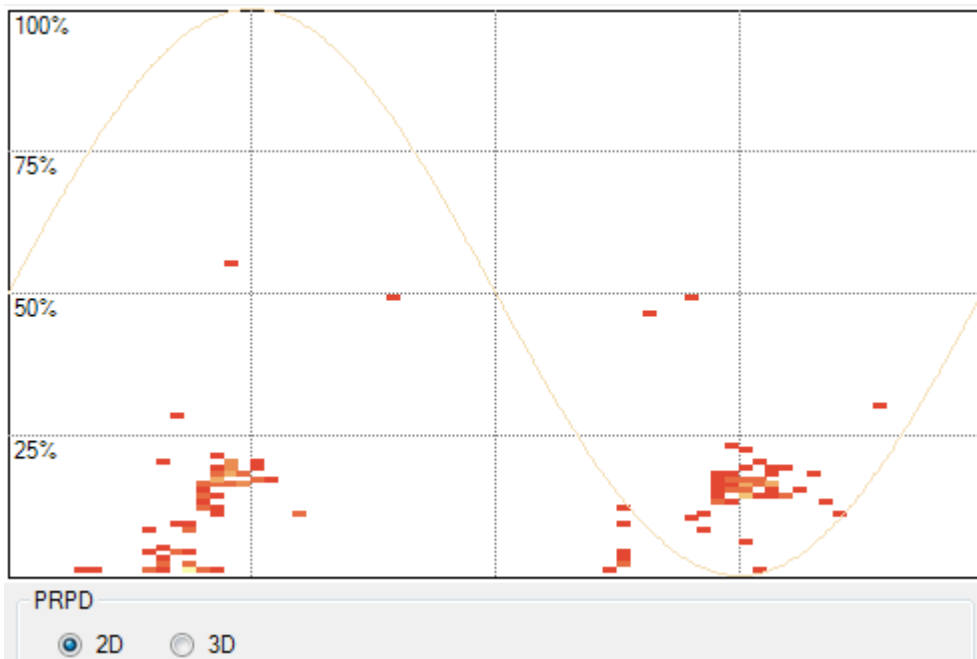
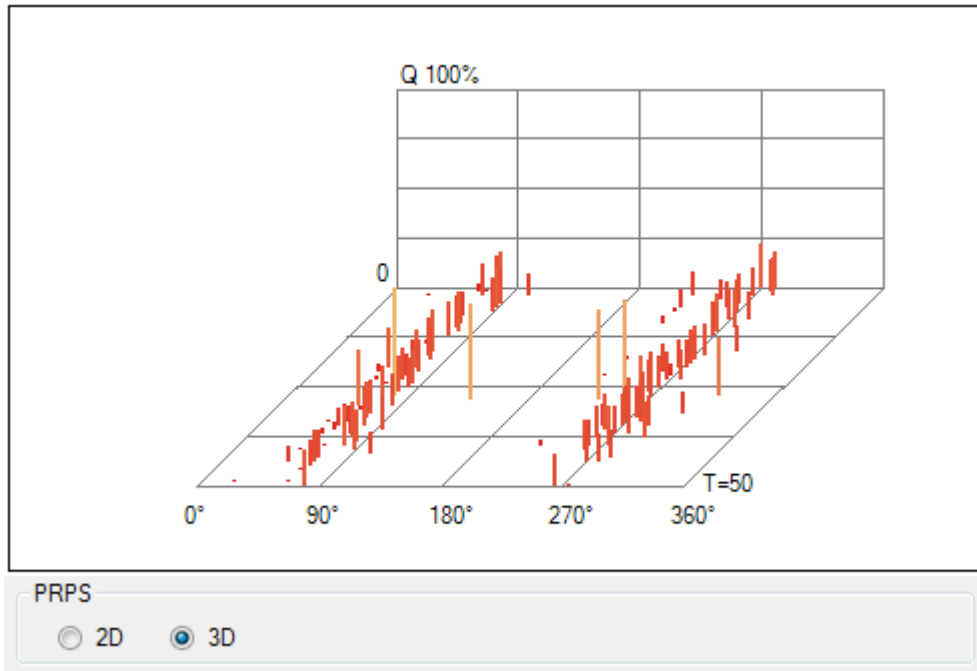


PHOTO.49 VOID OR INTERNAL DISCHARGE PATTERN 9

FINGER PRINT OF PARTIAL DISCHARGE

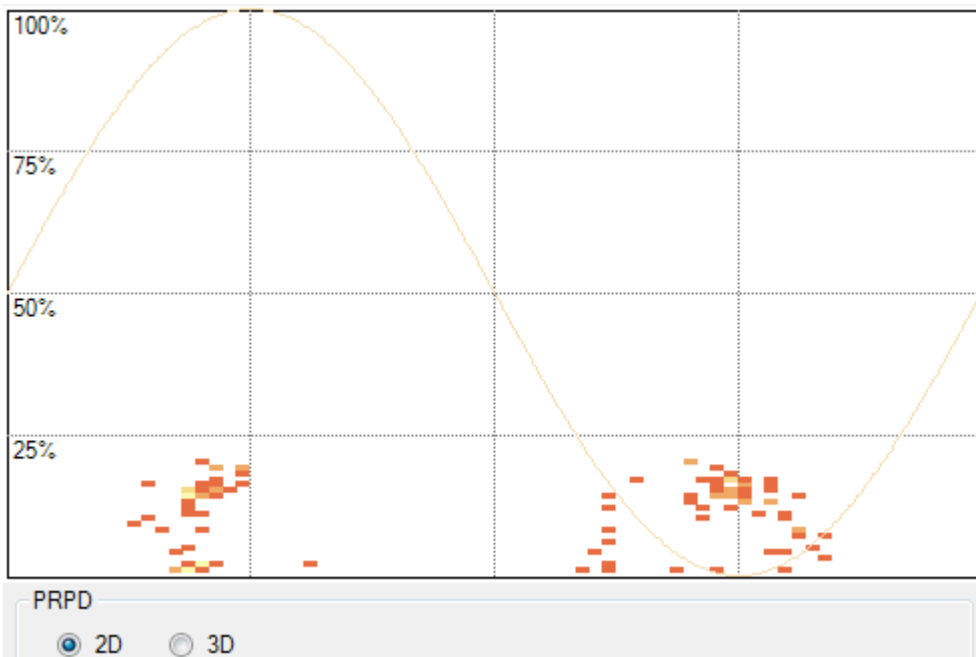
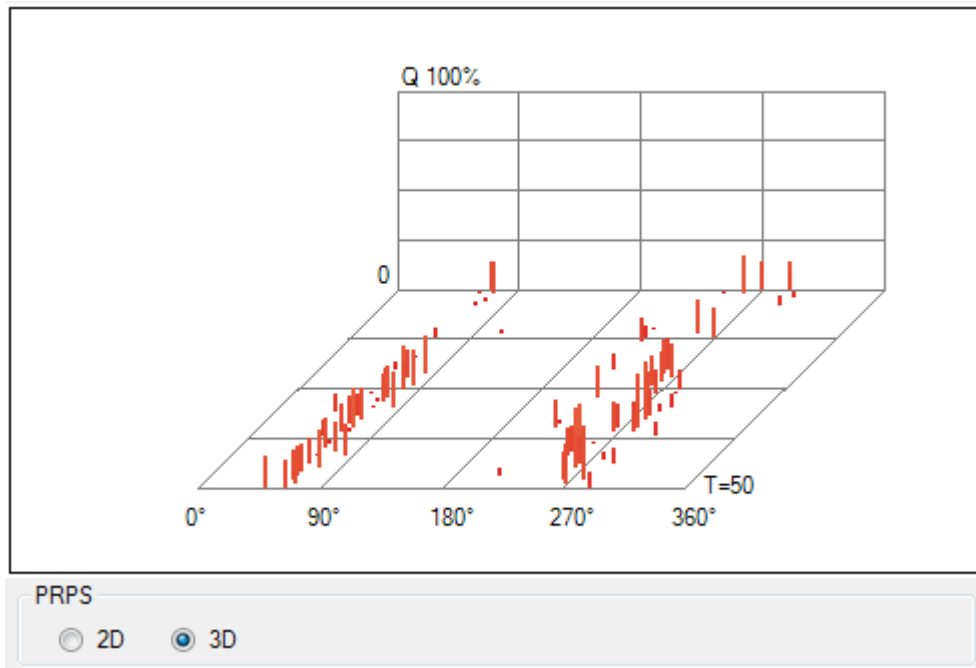


PHOTO.50 VOID OR INTERNAL DISCHARGE PATTERN 10