

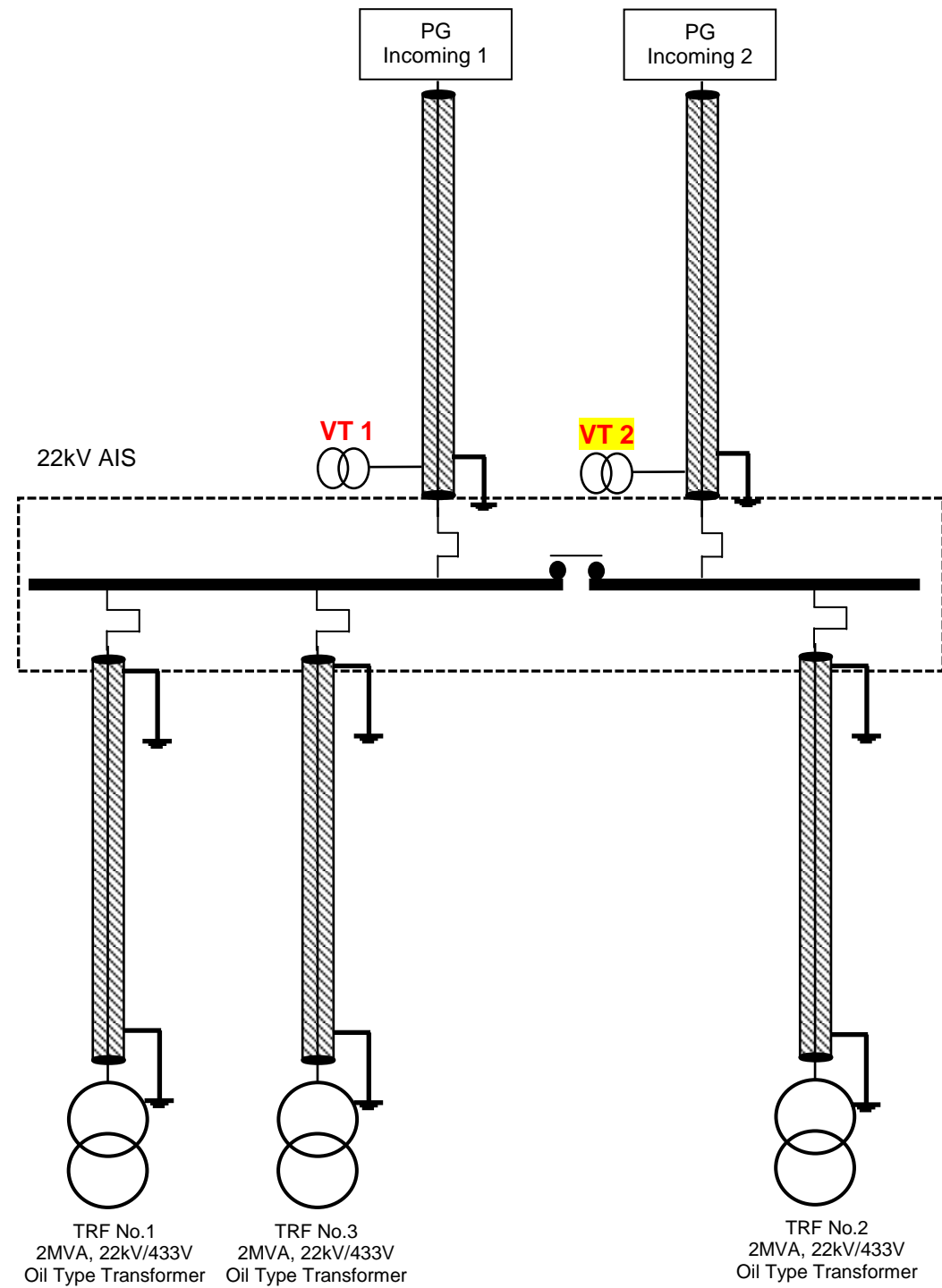
**Case History - 28: Online PD measurement using TEV, UHF, HFCT, Airborne Ultrasonic sensor**

Equipment under Measurement : **22kV Yorkshire, AIS Switchgear**

Date of Measurement : **07 May 2018**

Sensor Used :  
(i) **TEV Sensor**  
(ii) **Airborne Ultrasonic Sensor**  
(iii) **UHF Sensor**  
(iv) **HFCT Sensor**

Observation : **Surface Discharge marks was found at VT2 of Powergrid Incoming 2.**

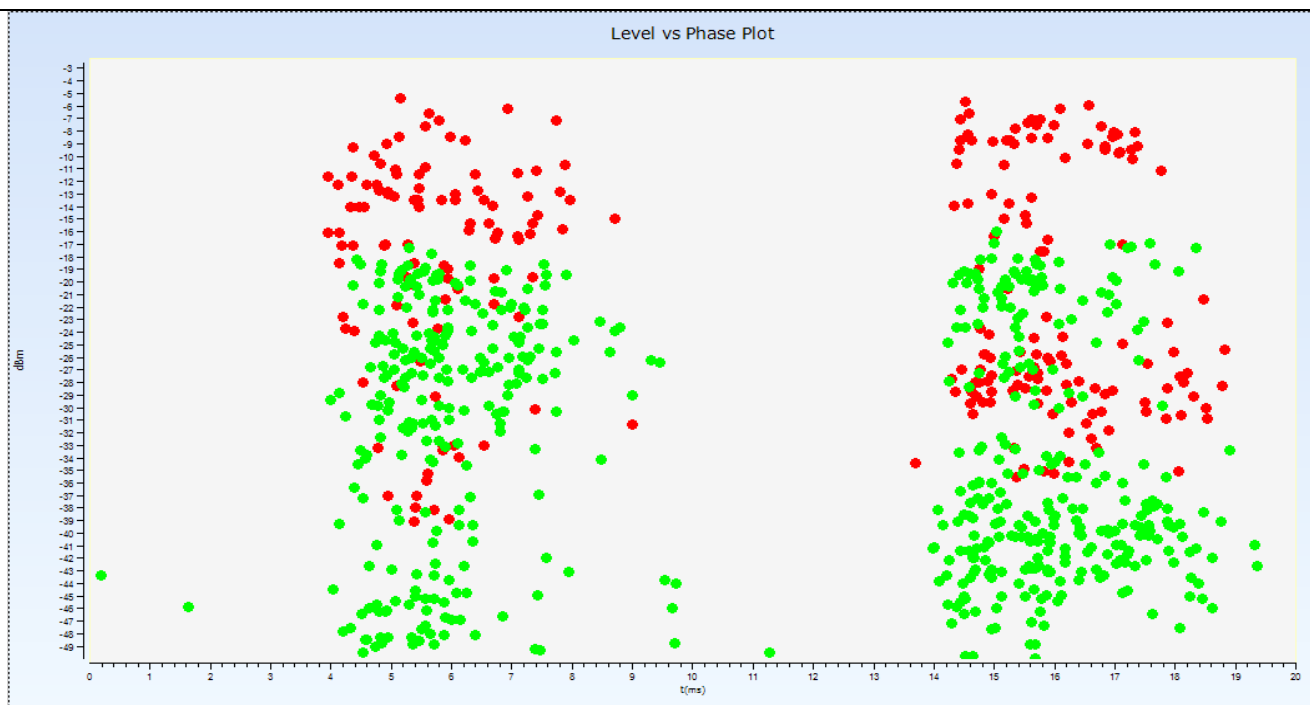


		VT1		VT2	
Transformer No.1	Transformer No.3	Power Grid Incoming No.1	Bus Section	Power Grid Incoming No.2	Transformer No.2
on	on	on	off	on	on

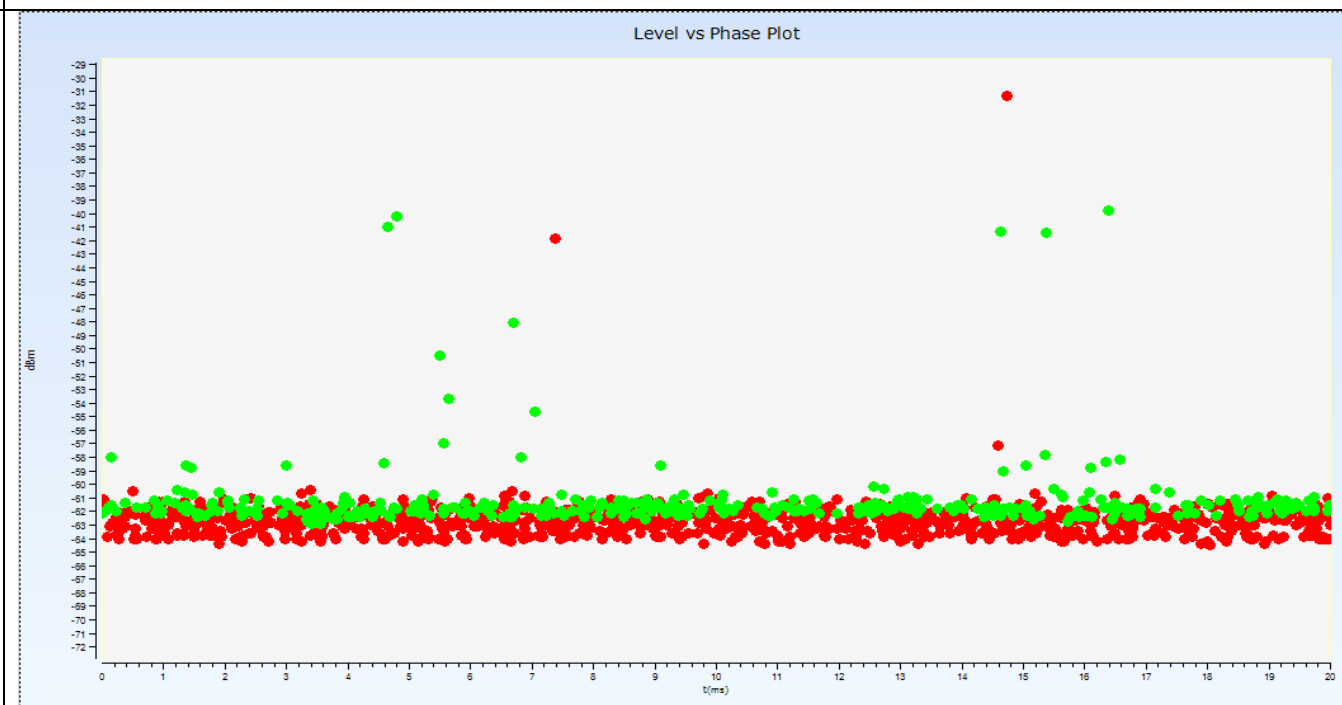
## ONLINE PD MEASUREMENT USING TEV SENSOR

Client :	A	PD test set:	Doble DFA300	Manufacturer:	Yorkshire	Type:	AIS
Substation Location:	HT Switchroom	Sensor Used:	TEV Sensor	Rated Voltage :	24 kV	Operating Voltage :	22kV

• Phase Resolved TEV (BEFORE ISOLATING VT2 on May 2018)



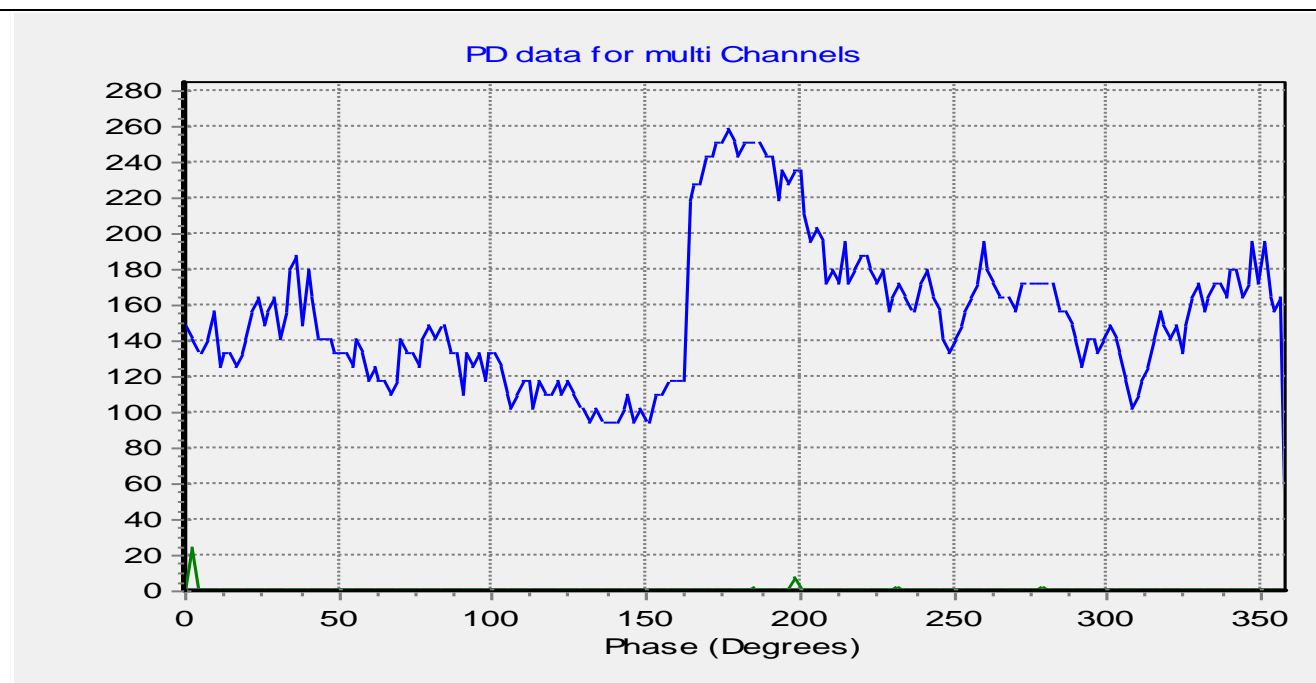
• Phase Resolved TEV (AFTER ISOLATING VT2 on August 2018)



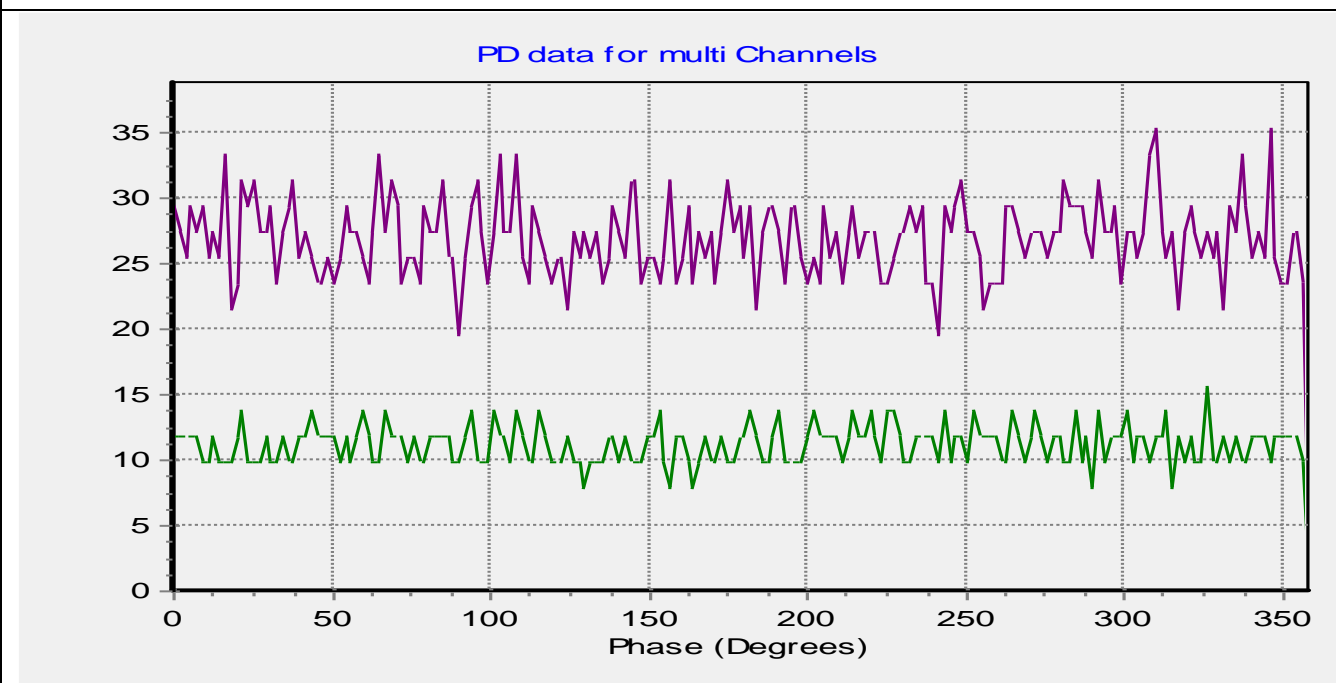
## ONLINE PD MEASUREMENT USING TEV SENSOR

Client :	A	PD test set:	OSM-ST1	Manufacturer:	Yorkshire	Type:	AIS
Substation Location:	HT Switchroom	Sensor Used:	Airborne ultrasonic Sensor	Rated Voltage :	24 kV	Operating Voltage :	22kV

- Phase Resolved TEV (BEFORE ISOLATING VT2 on May 2018)

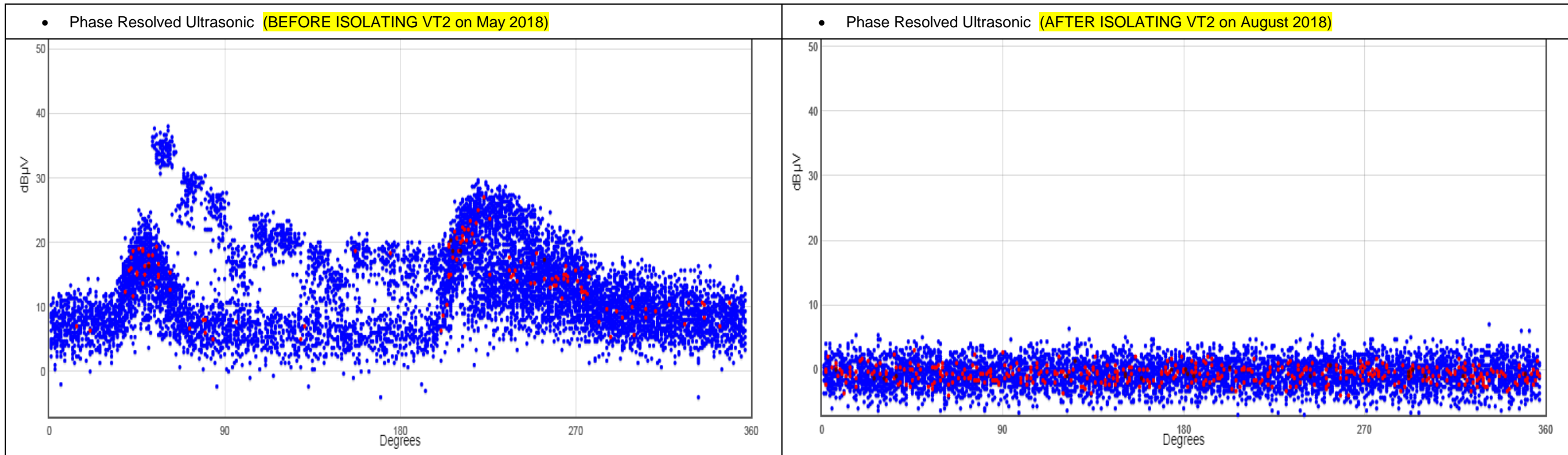


- Phase Resolved TEV (AFTER ISOLATING VT2 on August 2018)



## ONLINE PD MEASUREMENT USING ULTRASONIC SENSOR

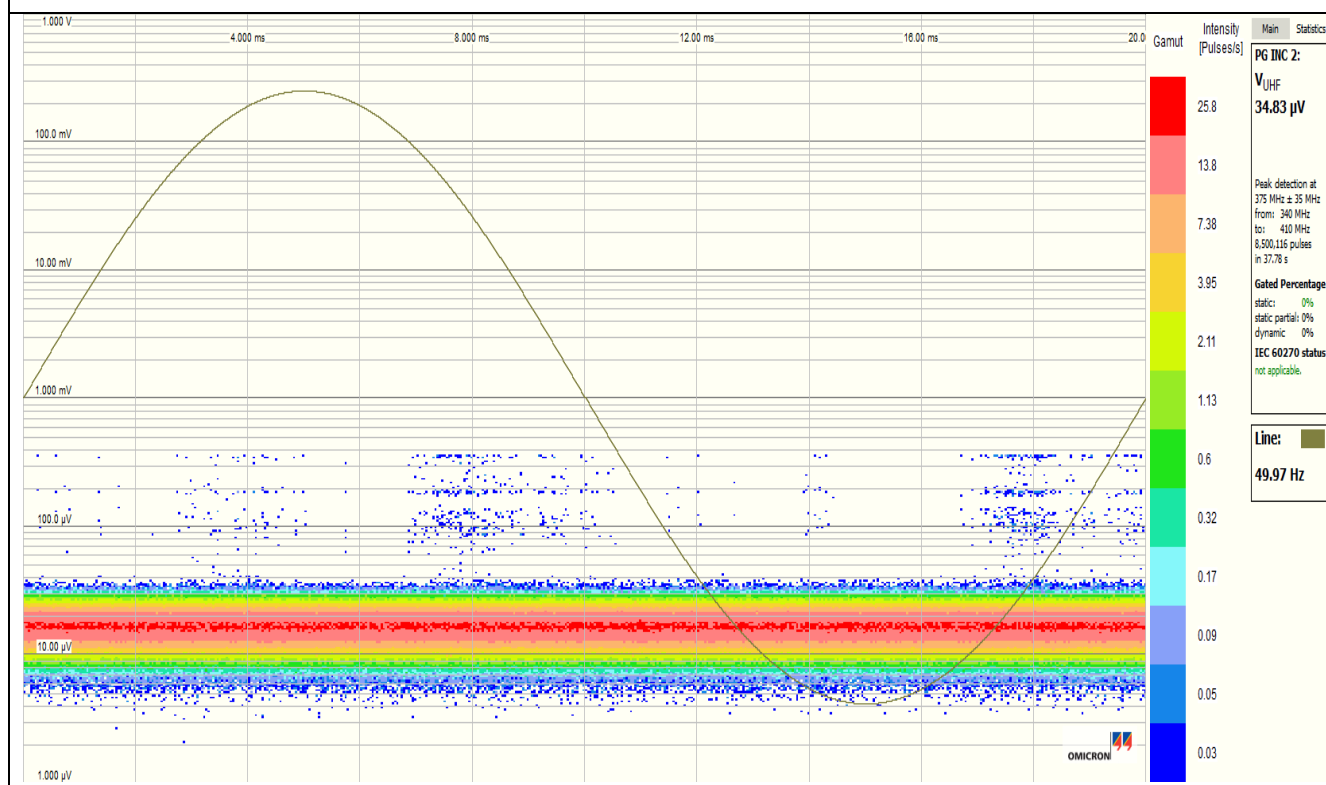
Client :	<b>A</b>	PD test set:	<b>Ultra TEV Plus 2</b>	Manufacturer:	<b>Yorkshire</b>	Type:	<b>AIS</b>
Substation Location:	<b>HT Switchroom</b>	Sensor Used:	<b>Airborne ultrasonic Sensor</b>	Rated Voltage :	<b>24 kV</b>	Operating Voltage :	<b>22kV</b>



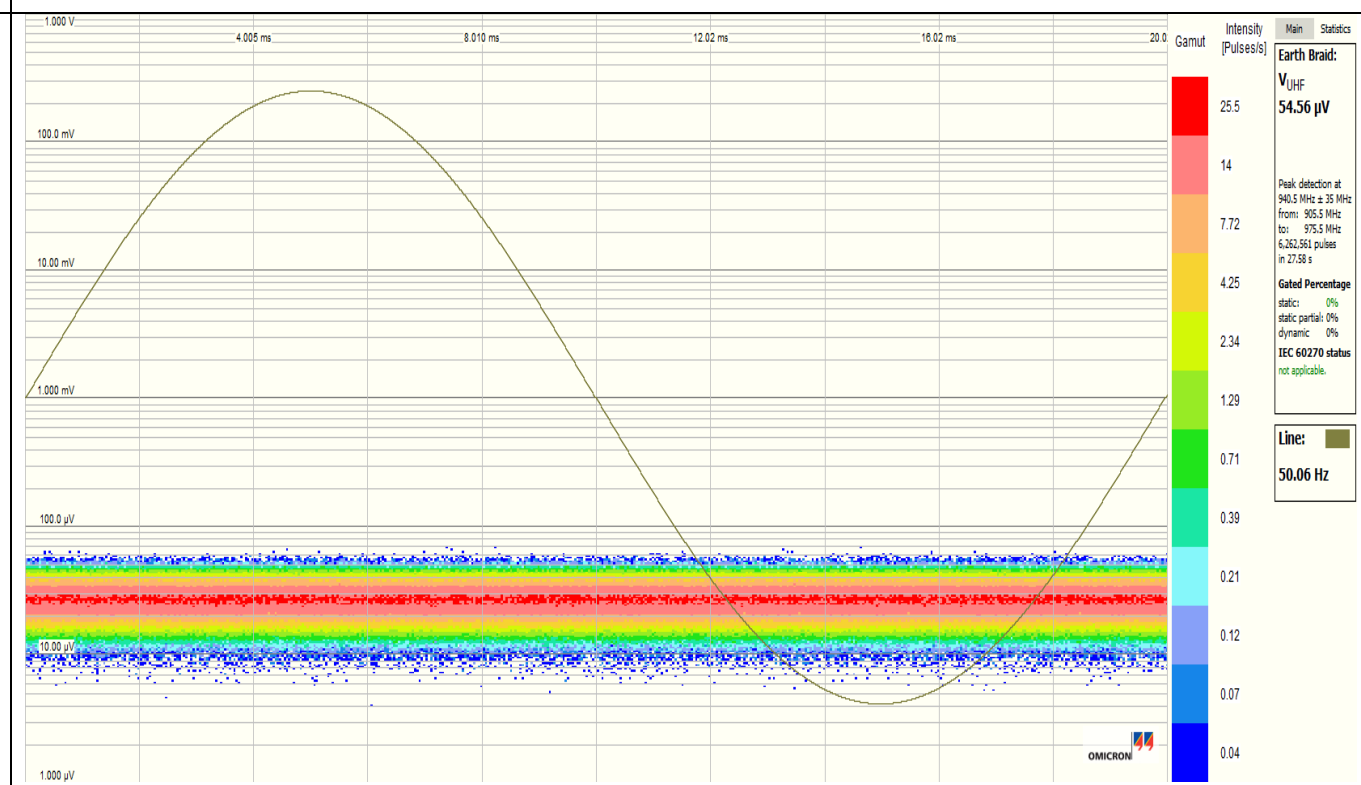
## ONLINE PD MEASUREMENT USING UHF SENSOR

Client :	<b>A</b>	PD test set:	<b>MPD600 of Omicron</b>	Manufacturer:	<b>Yorkshire</b>	Type:	<b>AIS</b>
Substation Location:	<b>HT Switchroom</b>	Sensor Used:	<b>UHF Sensor</b>	Rated Voltage :	<b>24 kV</b>	Operating Voltage :	<b>22kV</b>

### Phase Resolved UHF (BEFORE ISOLATING VT2 on May 2018)



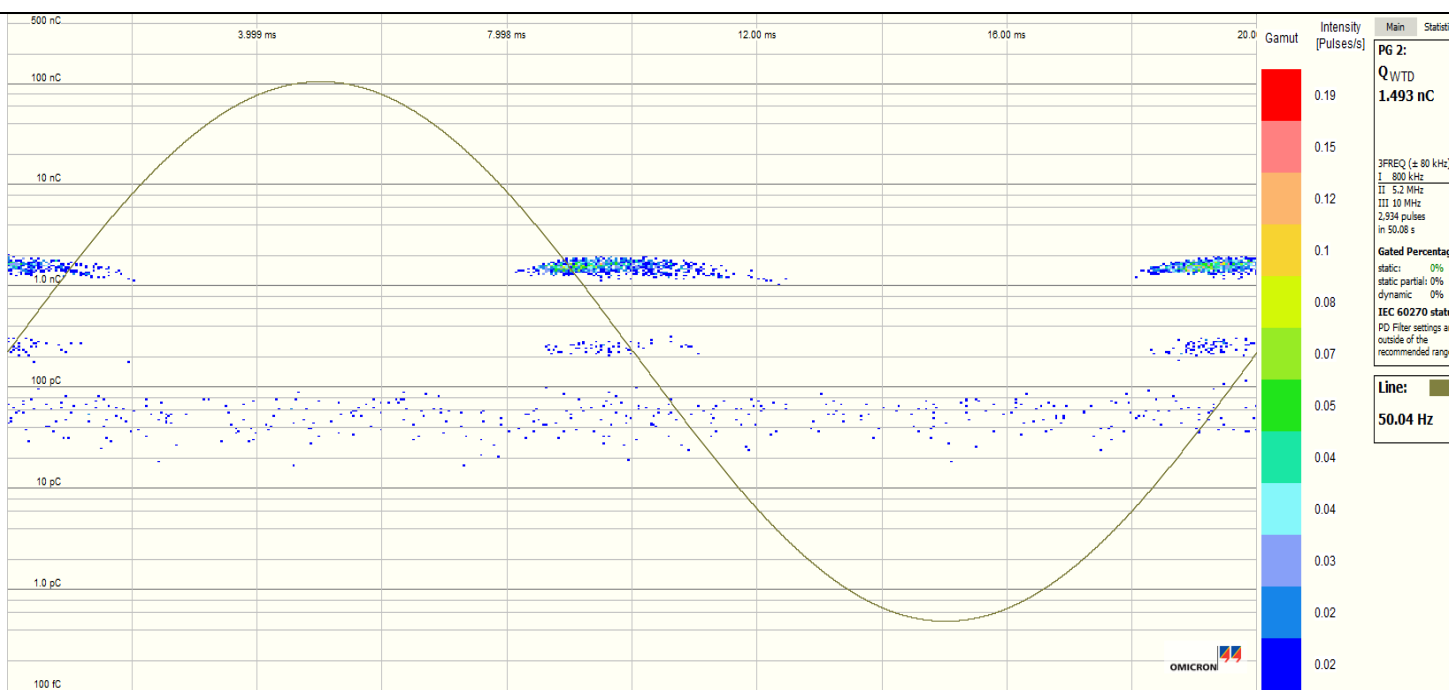
### Phase Resolved UHF (AFTER ISOLATING VT2 on August 2018)



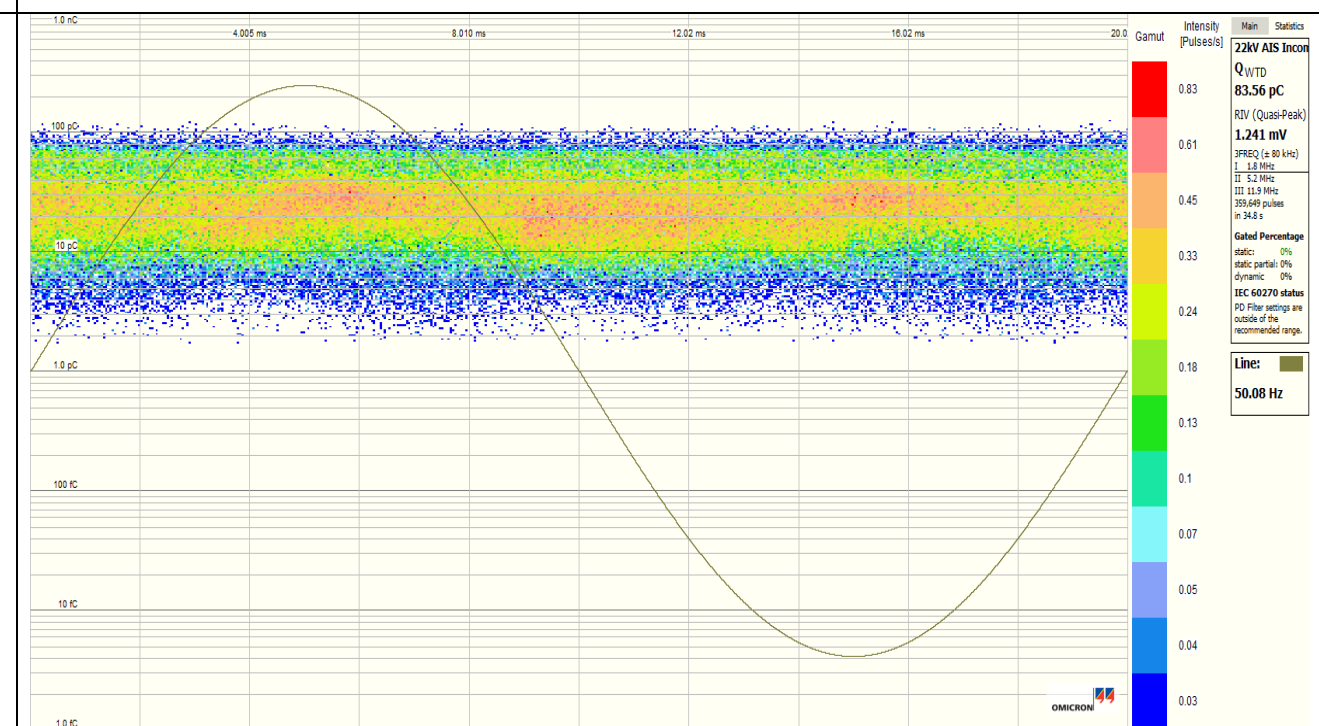
## ONLINE PD MEASUREMENT USING HFCT SENSOR

Client :	A	PD test set:	MPD600 of Omicron	Manufacturer:	Yorkshire	Type:	AIS
Substation Location:	HT Switchroom	Sensor Used:	HFCT Sensor	Rated Voltage :	24 kV	Operating Voltage :	22kV

• Phase Resolved HFCT (BEFORE ISOLATING VT2 on May 2018)



• Phase Resolved HFCT (AFTER ISOLATING VT2 on August 2018)





**FINDING**

