



# UltraTEV<sup>®</sup> Plus<sup>2</sup>

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## Technical Specification



UltraTEV

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Make Partial Discharge  
discovery simple

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# Specification: UltraTEV® Plus<sup>2</sup>

|                                   |   |
|-----------------------------------|---|
| <b>TEV</b>                        |   |
| Sensor                            | Capacitive  |
| Measurement Range                 | 0 – 60dBmV  |
| Resolution                        | 1dB   |
| Min Pulse Rate                    | 10Hz (rolling displays only)  |
| Discharge Pattern Phase Reference | Optical, E-Field and Manual   |
| <b>ULTRASONIC</b>                 |   |
| Measurement Range                 | -7dBµV to 71dBµV  |
| Resolution                        | 1dB   |
| Accuracy                          | ±1dB  |
| Transducer Sensitivity            | -65dB (0dB = 1volt/µbar RMS SPL)  |
| Transducer Centre Frequency       | 40 kHz  |
| Transducer Diameter               | 16mm  |
| Heterodyning Frequency            | 38.4 kHz  |
| <b>CABLE PD</b>                   |   |
| Sensor                            | HFCT  |
| Measurement Range                 | 100 - 100 000 pC  |
| Resolution                        | 98pC  |
| Accuracy                          | ±98pC   |
| Min Pulse Rate                    | 10Hz  |
| <b>HARDWARE</b>                   |   |
| Enclosure                         | Self-colour injection moulded plastic case  |
| Indicators                        | Colour back-lit LCD<br>Charging indicator LED   |
| Controls                          | Touch screen<br>Keypad  |
| Connectors                        | Micro USB connection port<br>Micro SD slot<br>2 x Lemo accessory connection ports<br>3.5mm headphone jack |
| Headphones                        | Min. 8 ohms   |
| <b>ENVIRONMENTAL</b>              |   |
| Operating Temperature             | -20 to 50 degrees C   |
| Humidity                          | 0 – 90% non-condensing  |
| IP Rating                         | 42  |
| <b>POWER SUPPLIES</b>             |   |
| Internal Batteries                | 3.7V rechargeable Lithium-Ion   |
| Typical Operating Time            | approx. 8 hours   |
| Battery Conservation              | Automatic low battery voltage 'switch off'  |

# Specification: UltraTEV<sup>®</sup> Plus<sup>2</sup> Locator probe

| TEV                      |  |
|--------------------------|--|
| Sensor                   | Capacitive                                       |
| Measurement Range        | 0 – 60dBmV                                       |
| Resolution               | 1dB  |
| Measurement Bandwidth    | 3 - 80 MHz                                       |
| Accuracy                 | ±1dB   |
| Locator probe precedence | 0.3ns equivalent to 10cm                         |
| HARDWARE                 |  |
| Enclosure                | Self-colour injection moulded plastic case       |
| Indicators               | Power indicator LED                              |
| Controls                 | 3 x push-buttons                                 |
| Connectors               | Cable to UltraTEV <sup>®</sup> Plus <sup>2</sup> |
| DIMENSIONS               |  |
| Size                     | 201mm x 76mm x 34mm with 2m long cable           |
| Weight                   | 00.36kg  |
| ENVIRONMENTAL            |  |
| Operating Temperature    | -10 to 55 °C                                     |
| Humidity                 | 0 – 90% non-condensing                           |
| IP Rating                | 42   |

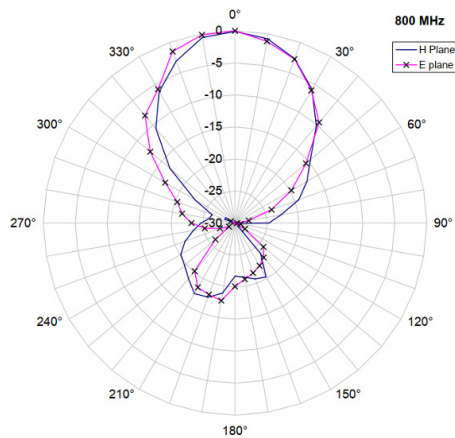
# Specification: UltraTEV® Plus<sup>2</sup> UHF Receiver

| HARDWARE MEASUREMENTS               |   |
|-------------------------------------|---|
| Enclosure                           | Aluminium   |
| Indicators                          | None  |
| Controls                            | None  |
| Connectors                          | 1x BNC antenna port<br>1x LEMO (UltraTEV® Plus <sup>2</sup> connection)   |
| DIMENSIONS                          |   |
| Size                                | 81mm x 40mm x 35mm  |
| Weight                              | 0.1kg   |
| POWER SUPPLIES                      |   |
| Power supply                        | Powered from UltraTEV® Plus <sup>2</sup>  |
| ENVIRONMENTAL MEASUREMENTS          |   |
| Operating temperature               | 0 - 55 °C   |
| Humidity                            | 0 - 90 % non-condensing   |
| IP rating                           | 42 (EN 60529)   |
| UHF MEASUREMENT - GENERAL           |   |
| Modes                               | Switchable narrowband/wideband  |
| Resolution                          | 1 dBm   |
| Measurement bandwidth               | 50Ω   |
| UHF MEASUREMENT - NARROWBAND        |   |
| Measurement range                   | -85 – +5 dBm  |
| Tuning frequency                    | 47 – 1000 MHz   |
| Bandwidth                           | 8 MHz   |
| Gain setting                        | -10 – +40 dB  |
| Accuracy                            | ±2 dB (0 dB gain; -50 dBm – 0 dBm input, 25°C)  |
| UHF MEASUREMENT - WIDEBAND          |   |
| Measurement range                   | -61 – -1 dBm  |
| Bandwidth                           | 5 – 3300 MHz  |
| Accuracy                            | ±2 dB   |
| COMPLIANCE                          |   |
| Electromagnetic compatibility (EMC) | EN 61326-1:2013 (Electrical equipment for measurement, control and laboratory use – EMC requirements. General requirements.)                        |
|                                     | EN 61000-6-2:2019 (Electromagnetic compatibility. Generic standards. Immunity standard for industrial environments.)                                |
|                                     | EN 55011:2016+A1:2017 (Industrial Scientific and Medical equipment – Radio frequency disturbance characteristics – Limits & methods of measurement) |

\*Please note this accessory requires UltraTEV® Plus<sup>2</sup> V8 Hardware or higher.

# Specification: UltraTEV<sup>®</sup> Plus<sup>2</sup> UHF Directional Antenna

| HARDWARE MEASUREMENTS         |  |
|-------------------------------|--|
| Enclosure                     | Self-coloured vacuum formed plastic case |
| Indicators                    | None                                     |
| Controls                      | None                                     |
| Connectors                    | 1x BNC signal port                       |
| DIMENSIONS                    |  |
| Size                          | 440mm x 440mm x 110mm                    |
| Weight                        | 2.1kg                                    |
| ENVIRONMENTAL MEASUREMENTS    |  |
| Operating temperature         | 0 - 55 °C                                |
| Humidity                      | 0 - 90 % non-condensing                  |
| IP rating                     | 42 (EN 60529)                            |
| ANTENNA                       |  |
| Forward gain                  | 13.6 dBi at 800 MHz                      |
| Beamwidth                     | 40° in E-plane and 50° in H-plane        |
| Approximate bandwidth         | 100 MHz centred on 800 MHz               |
| Maximum sensitivity frequency | 800 MHz                                  |
| Front to back ratio           | Approximately 20 dB                      |
| Radiation pattern (800 MHz)   | Normalized Radiation Pattern diagram     |

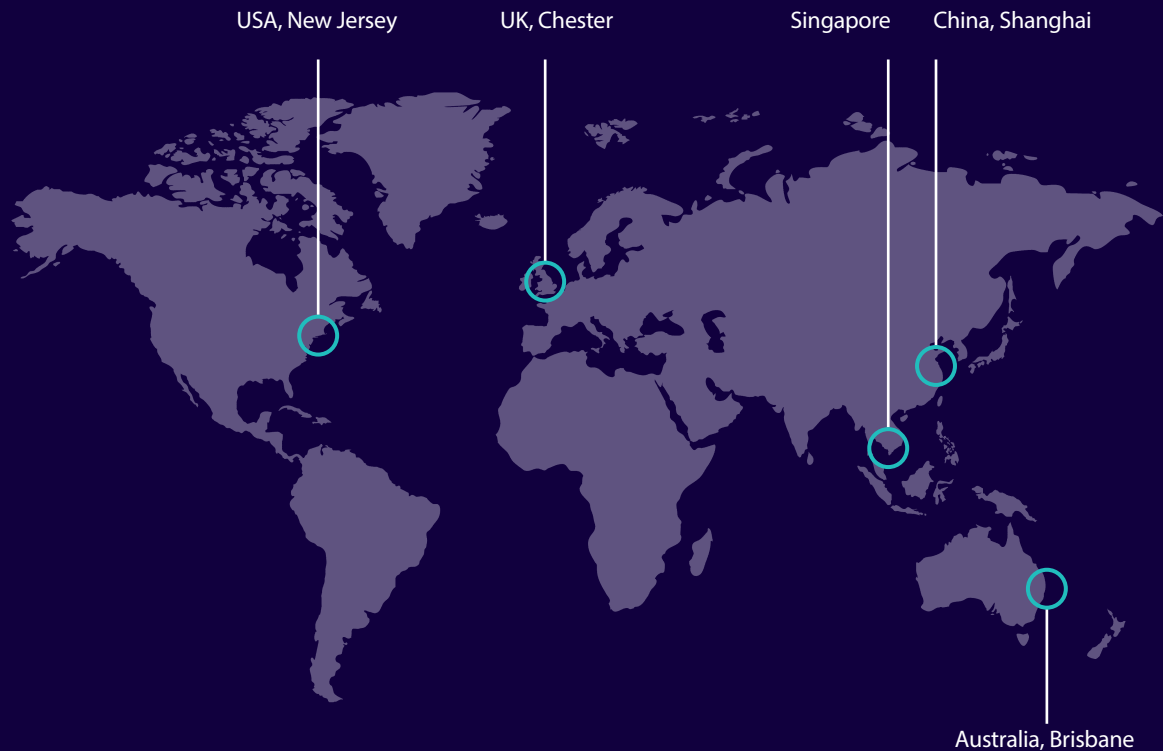


\* Please note this accessory requires UltraTEV<sup>®</sup> Plus<sup>2</sup> V8 hardware or higher and a UHF receiver.

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# Global Footprint

EA Technology is an engineering and technology business that provides intelligent energy solutions for designers, installers, operators, and owners of power network assets.



Founded in 1966 we have over 50 years' experience in the industry and 6 regional offices around the world to support our global customer base.

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