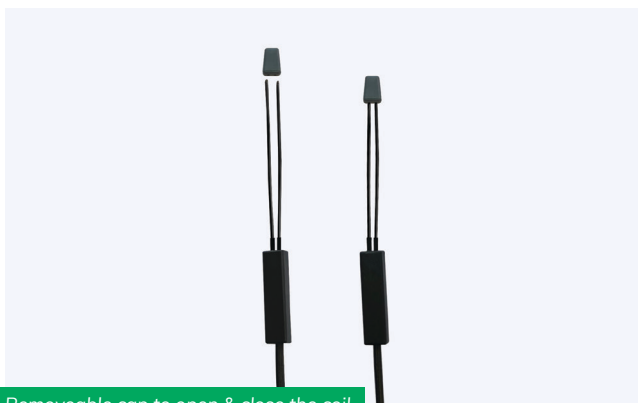


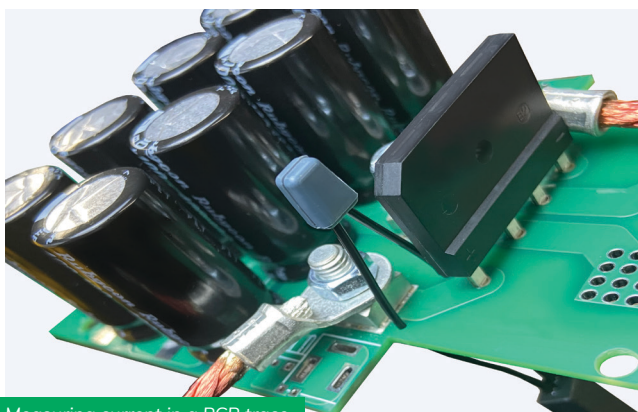
CWTUM-F CWTUMHF-F

A wide-band AC current probe with BNC output to connect to most types of oscilloscope or data acquisition devices.

The **CWTUM-F (1.3mm thickness)** and the **electrostatically screened version, the CWTUMHF-F (1.7mm thickness)**, are an **extension of the original CWT Ultra-mini range from PEMI**. The novel mechanical construction can reduce overall Rogowski coil size and thus the probes impact on the circuit under test. This simplifies measurements in densely populated power electronic circuits.



Removeable cap to open & close the coil



Measuring current in a PCB trace



Key Features

- Novel **'forked'** construction with a coil length of **55mm**.
- Wide operating temperature **-40°C to +125°C**.
- Current ratings from **60A pk** to **12kA pk**.
- Coil insulation **1.2kV pk**.
- Peak di/dt capability up to **100kA/μs**.
- Thin version **1.3mm** cross section diameter.
HF (-3dB) 15MHz
- A **shielded 'HF'** version **1.7mm** cross section diameter.
*Excellent voltage immunity
HF (-3dB) 30MHz*



Applications

- Switching current waveforms in power electronic circuits:
 - MOSFET or IGBT devices as small as TO-220, D²PAK and other SMT power devices.
 - Measuring power losses in semiconductor bond wires in power devices.
 - Monitoring currents in small inductors, capacitors, snubber circuits, etc.
- Measuring small AC currents in the presence of large DC currents (e.g. monitoring capacitor ripple).
- Power converter development and diagnostics.
- Measuring high frequency sinusoidal, pulsed or transient currents in power frequency to rf applications.



CWTUM-F (1.3mm thickness)

Model	Sensitivity (mV/A)	Peak Current (A)	Noise ^{*1} (mVp-p)	Droop (%/ms)	LF (-3dB) (Hz)	Peak di/dt (kA/μs)	HF (-3dB) Bandwidth ^{*2} (MHz)
CWTUM-F/03	100	60	20	85	150	4.0	15
CWTUM-F/06	50	120	15	78	100	8.0	15
CWTUM-F/1	20	300	15	53	50	20	15
CWTUM-F/3	10	600	15	19	20	40	15
CWTUM-F/6	5.0	1.2k	15	9.3	10	80	15
CWTUM-F/15	2.0	3.0k	12	4.6	5.0	100	15
CWTUM-F/30	1.0	6.0k	12	2.4	2.6	100	15
CWTUM-F/60	0.5	12.0k	12	1.2	1.2	100	15

CWTUMHF-F (Shielded / High frequency version - 1.7mm thickness)

Model	Sensitivity (mV/A)	Peak Current (A)	Noise ^{*1} (mVp-p)	Droop (%/ms)	LF (-3dB) (Hz)	Peak di/dt (kA/μs)	HF (-3dB) Bandwidth ^{*2} (MHz)
CWTUMHF-F/03	100	60	20	85	150	4.0	30
CWTUMHF-F/06	50	120	15	78	100	8.0	30
CWTUMHF-F/1	20	300	15	53	50	20	30
CWTUMHF-F/3	10	600	15	19	20	40	30
CWTUMHF-F/6	5.0	1.2k	15	9.3	10	80	30
CWTUMHF-F/15	2.0	3.0k	12	4.6	5.0	100	30
CWTUMHF-F/30	1.0	6.0k	12	2.4	2.6	100	30
CWTUMHF-F/60	0.5	12.0k	12	1.2	1.2	100	30

*1 'Noise' is the internally generated integrator noise, this is predominantly the same frequency as the LF (-3dB) bandwidth.

*2 The HF(-3dB) is specified for a 1m cable and 55mm coil, we can supply longer coils and cables on request.

di/dt ratings

These are 'Absolute maximum di/dt ratings' and values must not be exceeded.

Type	Abs. Max. peak di/dt	Abs. Max. rms di/dt
CWTUM-F / CWTUMHF-F	100kA/μs	1.0kA/μs

Included as standard

- ✓ Carry Case
- ✓ Unit Model
- ✓ Batteries (B or R)
- ✓ 0.5m BNC Output Cable
- ✓ Calibration Certificate

Optional Extras

- + Longer Cable
- + Longer Coil
- + Power Adaptor (UK, EU, US, AU)



More detailed technical notes, dimensioned drawings, CAD files and quotation request for this product are available online.

PENI

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