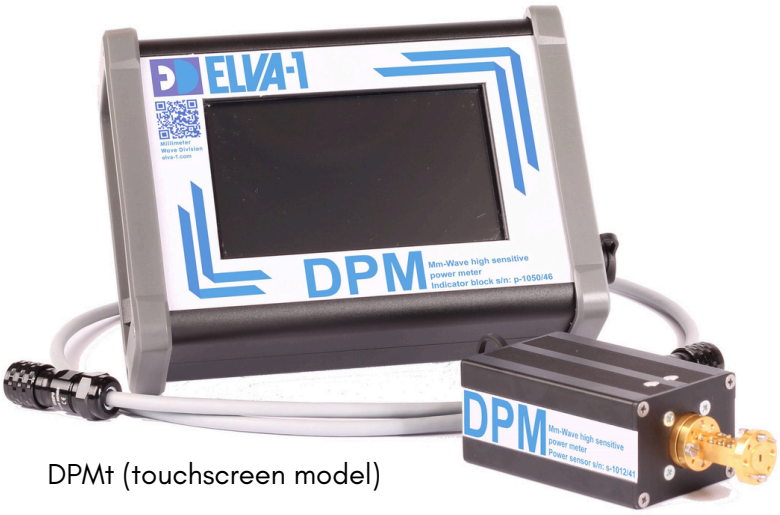
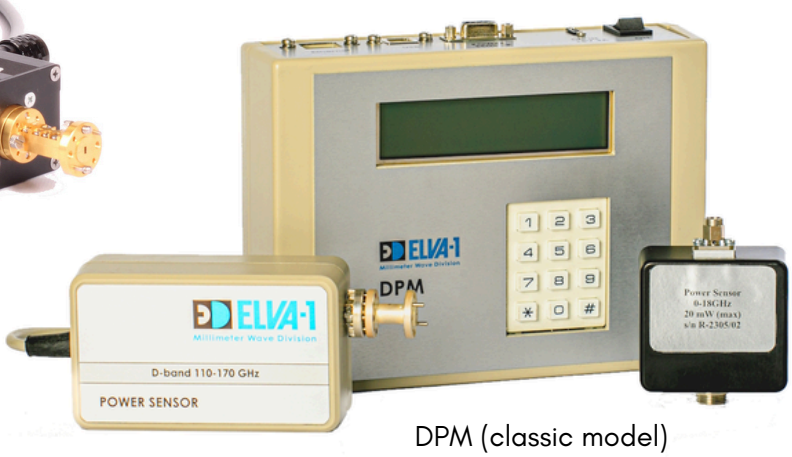
Mm-Wave High Sensitive Power Meters Up To 220 GHz

Frequency range
26.5 ÷ 220 GHz in subbands
(incl. DPM-C model for 100 MHz ÷ 26.5 GHz)



DPMt (touchscreen model)

Since 2026, a new DPMt (touchscreen model) has been available alongside the classic DPM model with a 2-line LED display. Both models have the same technical specifications for sensitivity and other parameters; only the user interface differs.



DPM (classic model)

Measurement of mm-wave signal power levels

Digital I/O ports

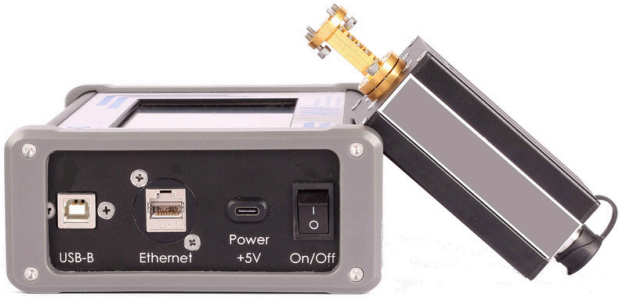
Each DPM-xx unit is equipped with USB and Ethernet ports (HTTP, web interface) for control and for exchanging measurement data with a PC.
Note: RS-232 and GPIB interfaces are available as optional.

10 subbands RF/mm-wave

- Up to 50 dB dynamic range (0.3 µW–30 mW)
- Fast measurement time (< 1 s)

Precise Sensor Heads

ELVA-1's ZBD-series Zero-Biased Detectors are used as the power sensors for our DPM Power Meters.



DPMt model' rear panel

DPM/DPMt-xx Power Meters Highlights

DPM-xx Power Meters display measured power in milliwatts, microwatts, or dBm, and also display the user-entered signal frequency in GHz. Easy operation is ensured by automatic zeroing, automatic sensor recognition, and a calibration factor table stored in the memory of each power sensor.

Their compact size, high accuracy, reliability, and competitive pricing make DPM-xx Power Meters attractive for design engineering, equipment manufacturing, field service, and research applications. The average measured power is displayed on a touchscreen at up to 50 measurements per second.

For power measurements below 5–10 mW (depending on the frequency band), each waveguide sensor includes a full-band isolator. For 5–100 mW (depending on the frequency band), a waveguide attenuator is used (a full-band isolator can be included on request). For higher power levels (up to 100 mW–1 W), optional directional couplers are available.

DPM/DPMt-xx Power Meters Specifications

Model Number	DPM-C	DPM -28	DPM -22	DPM -19	DPM -15	DPM -12	DPM -10	DPM -08	DPM -06	DPM -05
Frequency Band	–	Ka	Q	U	V	E	W	F	D	G
Frequency Range, GHz	0.01-26.5	26.5-40	33-50	40-60	50-75	60-90	75-110	90-140	110-170	140-220
Input Waveguide/ Impedance	50 Ohm, Coaxial	WR-28	WR-22	WR-19	WR-15	WR-12	WR-10	WR-08	WR-06	WR-05
Wavequide Flange/ Connector	SMA, male	UG-599/U	UG-383/U	UG-383/U-M	UG-385/U	UG-387/U	UG-387/U-M	UG-387/U-M	UG-387/U-M	UG-387/U-M
Max Input Power Level, dBm (*)	15	5	5	5	5	8	9	9	9	10
Max Measured Power Level, dBm	14	4	4	4	4	7	8	8	8	9
Dynamic Range, dB (max)	45	47	47	47	47	50	49	49	48	44
Min Measured Power Level, dBm	-31	-43	-43	-43	-43	-43	-41	-41	-40	-35
Measurement Rate (default), times per sec	2	2	2	2	2	2	2	2	2	2
VSWR (power sensor)	1.4:1	1.4:1	1.4:1	1.4:1	1.4:1	1.4:1	1.4:1	1.4:1	1.4:1	1.7:1

Note (*): Exceeded power level can burn a sensor.
ELVA-1 can supply an attenuator to the input, then the dynamic range will move to a higher power range.

How to order ELVA-1 DPM/DPMt mm-wave power meter:
Specify Model Number **DPM**-XX /P/UV/YZ, (or **DPMt**-XX /P/UV/YZ), where:

XX – number of waveguide standard (Ex. 10 for WR-10 and 06 for WR-06)
P – max input power (mW), exceeded power level can burn a sensor
UV – mains supply voltage, 110V or 240V (50/60Hz AC)
YZ – interfaces in alphabet order (G –GPIB, E – Ethernet, U – USB, R – RS-232)