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**Data Sheet**

August 13, 2026

IFR/MARCONI

# Marconi CPM20 Counter Power Meter

IFR Marconi CPM20 Counter Power Meter Overview The IFR CPM 20 is a portable microwave counter, true power meter, and DC voltmeter in one ruggedized case. Frequency measurement is 10 MHz to 20 GHz through a precision Type-N female input. Power measurement uses interchangeable 6910/6920/6930-series sensors from 30 kHz to 46 GHz and -65 dBm to +44 dBm (sensor dependent). A 0 dBm, 50 MHz power reference auto-calibrates sensors. A DTCXO frequency standard needs no warm-up. Internal rechargeable battery provides at least 3 hours of continuous operation. The CPM 46 sibling extends the counter to 46 GHz with a 2.92 mm input.



MODEL

**IFR/Marconi  
CPM20**

CALIBRATION

**Available on  
request**

CONDITION

**Used**

STATUS

**In stock**

RFQ / SKU

**CPM20**

LISTING

<https://aumictechlabs.com/products/cpm20-2/>

NIST-traceable cal

SAM registered

30-day returns

NAICS 423690 • 811210 • 541380

## This unit

The IFR/Marconi CPM20 Communications Performance Monitor is engineered for thorough assessment and maintenance of communication networks. Its portable design facilitates use in diverse settings, offering capabilities such as bit error rate testing (BERT), timing measurements, and protocol analysis. The CPM20 enables technicians to efficiently diagnose and resolve network issues, ensuring reliability and performance.

## CPM20 Characteristics / Specifications

| PARAMETER                            | VALUE                                                              |
|--------------------------------------|--------------------------------------------------------------------|
| Model                                | CPM20                                                              |
| Manufacturer                         | IFR / Marconi / Aeroflex                                           |
| Instrument Type                      | Portable microwave counter, power meter, and DVM                   |
| Family                               | CPM 20 / CPM 46                                                    |
| Alias                                | CPM 20; IFR CPM20                                                  |
| Counter Frequency Range              | 10 MHz to 20 GHz                                                   |
| Counter Sensitivity 10 MHz to 20 GHz | -20 dBm (typical below 20 MHz)                                     |
| Counter Input Connector              | precision TypeNfemale                                              |
| Counter Input Impedance              | 50 ohm nominal                                                     |
| Counter Maximum Input                | +10 dBm (typical below 20 MHz)                                     |
| Counter Damage Level                 | +27 dBm                                                            |
| Counter Resolution                   | user selectable 1 Hz to 1 MHz                                      |
| Measurement Time 1 Hz                | less than 2 s                                                      |
| Measurement Time Coarser             | less than 250 ms (resolution greater than 1 Hz)                    |
| FM Tolerance                         | 20 MHz peak to peak for rates greater than 1 kHz                   |
| AM Tolerance                         | any index if minimum level stays above sensitivity, 20 kHz rate    |
| Amplitude Discrimination             | 20 dB for signals greater than 400 MHz                             |
| Counter Accuracy 1 Hz                | frequency standard error plus/minus 25 Hz (10 MHz to 20 GHz)       |
| DTCXO Stability                      | better than plus/minus 5 in $10^{-8}$ , 0 to 50 C                  |
| DTCXO Ageing                         | plus/minus 0.3 ppm per year                                        |
| TCXO Option 001 Stability            | better than plus/minus 1 in $10^{-6}$ , 0 to 50 C                  |
| TCXO Option 001 Ageing               | plus/minus 1 ppm per year                                          |
| External Standard                    | 10 MHz, 0.7 to 5 V p-p into 1 k ohm nominal, AC coupled BNC female |
| Power Frequency Range                | 30 kHz to 46 GHz (sensor dependent)                                |
| Power Level Range                    | -65 dBm (0.31 nW) to +44 dBm (25 W) sensor dependent               |

| PARAMETER                 | VALUE                                                                               |
|---------------------------|-------------------------------------------------------------------------------------|
| Sensors 6910 Series       | -30 dBm to +20 dBm                                                                  |
| Sensors 6920 Series       | -65 dBm to -20 dBm class                                                            |
| Sensors 6930 Series       | -15 dBm to +35 dBm                                                                  |
| Sensors 6930 Opt          | -5 dBm to +44 dBm                                                                   |
| Power Accuracy            | plus/minus 0.2 dB after 0 dBm reference cal (midrange, source RL better than 14 dB) |
| Power Resolution          | 4 digits                                                                            |
| Power Units               | dBm, dBW, pW, nW, uW, mW, W, kW                                                     |
| Reference Frequency       | 50 MHz plus/minus 0.10 MHz                                                          |
| Reference Level           | 0 dBm (1 mW)                                                                        |
| Reference Uncertainty     | plus/minus 0.7 percent traceable                                                    |
| Reference Accuracy 1 Year | plus/minus 1.2 percent worst case                                                   |
| Reference Connector       | N female 50 ohm                                                                     |
| DVM Range                 | 0 V to +10 V DC (protected to 40 V)                                                 |
| DVM Accuracy              | plus/minus 2.5 percent of reading                                                   |
| DVM Resolution            | 10 mV                                                                               |
| DVM Impedance             | 6 M ohm in parallel with 100 pF                                                     |
| Display                   | 1/4 VGA transfective LCD with backlight                                             |
| Remote                    | RS 232 9 pinDmale (DTE)                                                             |
| DC Input                  | 10 V to 28 V, 32 VA max                                                             |
| Battery Life              | 3 hours continuous minimum                                                          |
| Recharge Time             | less than 4 hours                                                                   |
| Width                     | 285 mm                                                                              |
| Height                    | 130 mm                                                                              |
| Depth                     | 210 mm                                                                              |
| Weight                    | 4.9 kg (10.8 lb) including battery                                                  |
| Operating Temperature     | 0 to +45 C                                                                          |
| Storage Temperature       | -40 to +70 C (excluding battery)                                                    |

| PARAMETER        | VALUE                                          |
|------------------|------------------------------------------------|
| Storage Humidity | up to 93 percent RH at +40 C                   |
| Shock Vibration  | MIL T 28800 class 3                            |
| Drop Test        | IEC 68 2 32                                    |
| Ingress          | IEC 529 rating IP 523                          |
| Related CPM      | 10 MHz to 46 GHz counter; 2.92 mm female input |
| Humidity         | up to 93 percent RH at +40 C                   |

# General Specifications & Supplementary Characteristics

| PARAMETER             | VALUE                                                                                                                                                                                                                                                                                                                           |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Storage temperature   | 40 to +70 C (excluding battery)                                                                                                                                                                                                                                                                                                 |
| Operating temperature | 0 to +45 C                                                                                                                                                                                                                                                                                                                      |
| Operating Temperature | 0 to +45 C                                                                                                                                                                                                                                                                                                                      |
| Humidity              | up to 93 percent RH at +40 C                                                                                                                                                                                                                                                                                                    |
| Storage Humidity      | up to 93 percent RH at +40 C                                                                                                                                                                                                                                                                                                    |
| Shock Vibration       | MIL T 28800 class 3                                                                                                                                                                                                                                                                                                             |
| Drop Test             | IEC 68 2 32                                                                                                                                                                                                                                                                                                                     |
| Ingress               | IEC 529 rating IP 523                                                                                                                                                                                                                                                                                                           |
| Related CPM           | 10 MHz to 46 GHz counter; 2.92 mm female input Notes Specs from IFR CPM 20, 46 Counter Power Meter data sheet. Counter connector and 20 GHz stop are CPM 20 specific; power range always depends on the attached 69xx sensor. Confirm DTCXO vs Option 001 TCXO and whether a 6912 or other sensor is included with the listing. |

# Full OEM specifications

Complete technical content extracted from the manufacturer datasheet. Sparse OEM tables are reconstructed as tables below; other text is preserved as paragraphs.

| Specifications                       |                                                                    |
|--------------------------------------|--------------------------------------------------------------------|
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| PARAMETER                            | VALUE                                                              |
| Model                                | CPM20                                                              |
| Manufacturer                         | IFR / Marconi / Aeroflex                                           |
| Instrument Type                      | Portable microwave counter, power meter, and DVM                   |
| Family                               | CPM 20 / CPM 46                                                    |
| Alias                                | CPM 20; IFR CPM20                                                  |
| Counter Frequency Range              | 10 MHz to 20 GHz                                                   |
| Counter Sensitivity 10 MHz to 20 GHz | -20 dBm (typical below 20 MHz)                                     |
| Counter Input Connector              | precision TypeNfemale                                              |
| Counter Input Impedance              | 50 ohm nominal                                                     |
| Counter Maximum Input                | +10 dBm (typical below 20 MHz)                                     |
| Counter Damage Level                 | +27 dBm                                                            |
| Counter Resolution                   | user selectable 1 Hz to 1 MHz                                      |
| Measurement Time 1 Hz                | less than 2 s                                                      |
| Measurement Time Coarser             | less than 250 ms (resolution greater than 1 Hz)                    |
| FM Tolerance                         | 20 MHz peak to peak for rates greater than 1 kHz                   |
| AM Tolerance                         | any index if minimum level stays above sensitivity, 20 kHz rate    |
| Amplitude Discrimination             | 20 dB for signals greater than 400 MHz                             |
| Counter Accuracy 1 Hz                | frequency standard error plus/minus 25 Hz (10 MHz to 20 GHz)       |
| DTCX0 Stability                      | better than plus/minus 5 in 10^8, 0 to 50 C                        |
| DTCX0 Ageing                         | plus/minus 0.3 ppm per year                                        |
| TCX0 Option 001 Stability            | better than plus/minus 1 in 10^6, 0 to 50 C                        |
| TCX0 Option 001 Ageing               | plus/minus 1 ppm per year                                          |
| External Standard                    | 10 MHz, 0.7 to 5 V p-p into 1 k ohm nominal, AC coupled BNC female |
| Power Frequency Range                | 30 kHz to 46 GHz (sensor dependent)                                |
| Power Level Range                    | -65 dBm (0.31 nW) to +44 dBm (25 W) sensor dependent               |
| Sensors 6910 Series                  | -30 dBm to +20 dBm                                                 |

| PARAMETER                 | VALUE                                                                               |
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| Sensors 6920 Series       | -65 dBm to -20 dBm class                                                            |
| Sensors 6930 Series       | -15 dBm to +35 dBm                                                                  |
| Sensors 6930 Opt 2        | -5 dBm to +44 dBm                                                                   |
| Power Accuracy            | plus/minus 0.2 dB after 0 dBm reference cal (midrange, source RL better than 14 dB) |
| Power Resolution          | 4 digits                                                                            |
| Power Units               | dBm, dBW, pW, nW, uW, mW, W, kW                                                     |
| Reference Frequency       | 50 MHz plus/minus 0.10 MHz                                                          |
| Reference Level           | 0 dBm (1 mW)                                                                        |
| Reference Uncertainty     | plus/minus 0.7 percent traceable                                                    |
| Reference Accuracy 1 Year | plus/minus 1.2 percent worst case                                                   |
| Reference Connector       | N female 50 ohm                                                                     |
| DVM Range                 | 0 V to +10 V DC (protected to 40 V)                                                 |
| DVM Accuracy              | plus/minus 2.5 percent of reading                                                   |
| DVM Resolution            | 10 mV                                                                               |
| DVM Impedance             | 6 M ohm in parallel with 100 pF                                                     |
| Display                   | 1/4 VGA transfective LCD with backlight                                             |
| Remote                    | RS 232 9 pinDmale (DTE)                                                             |
| DC Input                  | 10 V to 28 V, 32 VA max                                                             |
| Battery Life              | 3 hours continuous minimum                                                          |
| Recharge Time             | less than 4 hours                                                                   |
| Width                     | 285 mm                                                                              |
| Height                    | 130 mm                                                                              |
| Depth                     | 210 mm                                                                              |
| Weight                    | 4.9 kg (10.8 lb) including battery                                                  |
| Operating Temperature     | 0 to +45 C                                                                          |
| Storage Temperature       | -40 to +70 C (excluding battery)                                                    |
| Storage Humidity          | up to 93 percent RH at +40 C                                                        |
| Shock Vibration           | MIL T 28800 class 3                                                                 |
| Drop Test                 | IEC 68 2 32                                                                         |
| Ingress                   | IEC 529 rating IP 523                                                               |
| Related CPM 46            | 10 MHz to 46 GHz counter; 2.92 mm female input                                      |

#### Notes

Specs from IFR CPM 20, 46 Counter Power Meter data sheet. Counter connector and 20 GHz stop are CPM 20 specific; power range always depends on the attached 69xx sensor. Confirm DTCX0 vs Option 001 TCX0 and whether a 6912 or other sensor is included with the listing.

## Ordering Information

| OPTION     | DESCRIPTION                                                        |
|------------|--------------------------------------------------------------------|
| Option 001 | Stability: better than plus/minus 1 in 10 <sup>6</sup> , 0 to 50 C |

### Available from Aumictech

Used and refurbished unit evaluated in-house. Calibration: Available on request. Used · In stock.

Request a quote: [sales@aumictech.com](mailto:sales@aumictech.com) · +1 (484) 841-9341

#### Aumictech

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NIST-traceable calibration · SAM registered ·  
30-day returns  
NAICS 423690 · 811210 · 541380  
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Technical content from manufacturer specifications. Unit photo/stock from Aumictech listing when available. Specifications subject to OEM documentation and unit condition.