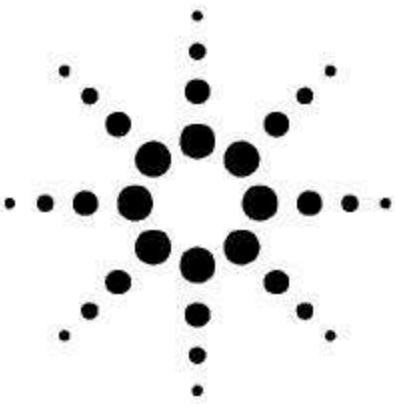


# Agilent 5352B 40 GHz CW Microwave Counter

## Data Sheet



### Input 1

Frequency Range: 500 MHz to 40 GHz (500 MHz to 46 GHz with Opt. 005)

#### Sensitivity

Full Operating Environment

500 MHz to 26.5 GHz: -25 dBm

26.5 GHz to 46 GHz:  $\text{dBm} = 0.741 f(\text{GHz}) - 44.6$   
@25° C (typical)

500 MHz to 26.5 GHz: -30 dBm

26.5 GHz to 46 GHz:  $\text{dBm} = 0.741 f(\text{GHz}) - 49.6$

Maximum Input: +7 dBm

Damage Level: +25 dBm

### Input 2

Frequency Range

10 Hz to 525 MHz

50 ohm: 10 MHz to 525 MHz

1 Mohm: 10 Hz to 80 MHz

#### Sensitivity

Full operating environment

50 ohm: 10 MHz to 525 MHz, 25 mV rms (15 mV typical @ 25° C)

1 Mohm: 10 Hz to 80 MHz, 25 mV rms (15 mV typical @ 25° C)

#### Maximum Input

50 ohm: + 10 dBm

1 Mohm: 1V rms

#### Damage Level

50 ohm or 1 Mohm dc to 5 kHz: 250 V (dc + ac peak);

>5 kHz: 5.5 V rms (+28 dBm) +  $1.25 \times 10^6 \text{ Vrms/freq}$

Connector: Replaceable fuse, type BNC (female)

Resolution: Selectable, 1 Hz to 1 MHz

### High Resolution

1 Mohm mode, 1 second gate:

0.01 Hz for <100 kHz input

0.01 Hz for <1 MHz input

0.02 0.1 Hz for <10 MHz input

0.03 1 Hz for >10 MHz input

### Timebases

Standard TCXO

Aging rate:  $1 \times 10^{-7}$ /month

Temp (0 to 50° C):  $1 \times 10^{-6}$

Option 001

Aging rate:  $5 \times 10^{-10}$ /day

Temp (0 to 50° C):  $7 \times 10^{-9}$

Option 010

Aging rate:  $1 \times 10^{-10}$ /day

Temp (0 to 50° C):  $7 \times 10^{-9}$

Timebase Output

10 MHz and 1 MHz, 2.4 V square wave ac coupled into 1 kohm: 1.5V peak-to-peak into 50 ohm; rear panel BNC connectors

External Timebase

1, 2, 5, or 10 MHz, 0.7 V min. to 8 V max. peak-to-peak sine wave or square wave into >1 kohm shunted by <30 pF, via rear-panel BNC connector

### General

Display: Segmented 24-character alphanumeric LCD (backlighted)

Built-in Features: Self-check, diagnostics, display and keyboard lockout, overload indicator, HP-IB teach-learn mode

Data Output Over HP-IB bus; varies with frequency and resolution

Auto Mode: >100 readings/s, 10 kHz resolution, no math functions, "DUMP" mode

Manual mode: >120 readings/s, 10 kHz resolution, no math functions, "DUMP" mode

Math Functions: Scale, offset, smooth (exponential averaging)

Sample Rate: Variable from less than 50 ms between measurements to HOLD, which holds the display indefinitely or until trigger occurs.

Display Rate: 5/s, variable over HP-IB

Sleep Mode: Input 1 emissions reduced to <-70 dBm typical when sleep mode or Input 2 is selected.

### Output

IF Output: Rear-panel BNC provides 30-110 MHz down-converted microwave signal at >-20 dBm into 50 ohm, ac-coupled.

HP-IB Interface Functions: SH1, AH1, T5, L4, SR1, RL1, PP0, DC1, DT1, C0, E1

### Physical and Power Characteristics

Operating temperature: 0° C to 50° C

Power Requirements: 100 VA max

Line Select

100 V (90 to 105 Vac rms; 47.5 to 440 Hz)  
115/120 V (104/126 Vac rms; 47.5 to 440 Hz)  
220 V (198 to 231 Vac rms; 47.5 to 66 Hz)  
230/240 V (207 Vac rms; 47.5 to 66 Hz)

Size: 425 mm W X 133 mm H X 358 mm D (16-3/4 X 5-1/4 X 14 in)

Weight: 11 kg (24 lb)