



Probe power: front panel DC output for HP active high impedance accessory probes.

HP-IB interface: rear panel interface meeting IEEE 488-1975 for remote operation. Used for tracking synthesizer interface.

Additional outputs: rear panel demodulated audio; phase jitter meter.

General

Operating Environment

Temperature: 0° to 55°C.

Relative humidity: 95%, 0° to 40°C.

Altitude: ≤15,000 ft.; ≤4600 meters.

Storage environment

Temperature: -40°C to 75°C.

Altitude: ≤50,000 ft.; ≤15,240 meters.

Power: 100/120/220/240 V, +5%, -10% 48 to 66 Hz, 150 VA.

Weight: 23 Kg (50 lbs) net; 30 Kg (65 lbs) shipping.

Size: 177 mm H x 425.5 mm W x 466.7 mm D (7" x 16.75" x 18.38")

3336 A & B Abbreviated Specifications

(See Data Sheet or manual for complete specifications)

Frequency

Frequency range of signal outputs

Signal Output	3336A	3336B
75 Ω Unbalanced	10 Hz to 20.999 999 999 MHz	
135 Ω Balanced		10 kHz to 10.999 999 999 MHz
124 Ω Balanced		10 kHz to 2.099 999 999 MHz
150 Ω Balanced	10 kHz to 2.099 999 999 MHz	
600 Ω Balanced	200 Hz to 109.999 999 kHz	

All balanced outputs are usable over wider frequency ranges but are not specified in under and overrange operation.

Resolution: 1 μ Hz for frequencies <100 kHz, 1 μ Hz for frequencies ≥100 kHz.

Accuracy (instruments without option 004): ± 5 x 10⁻⁶ of programmed frequency.

Aging rate (instruments without option 004): ± 5 x 10⁻⁶/year (20° to 30°C).

Warm-up time: 30 minutes.

Amplitude

Range: 75 and 600 Ω outputs; -72.99 to +7.00 dBm

124, 135 and 150 Ω outputs: -78.23 to +1.76 dBm.

Level accuracy, 20° to 30°C:

75 Ω output			75 Ω output with option 005*		
dBm	± .15 dB		dBm	± .12 dB	
+7.00	± .25 dB	± .30 dB	+7.00	± .12 dB	
-3.00	± .30 dB	± .35 dB	-3.00	± .16 dB	
-13.00	± .30 dB	± .40 dB	-13.00	± .18 dB	
-33.00	± .35 dB	± .45 dB	-33.00	± .22 dB	
-72.99			-72.99		
	10Hz	10MHz		10 Hz	20.9 MHz

*high accuracy attenuator

124 Ω output: 50 kHz to 10.9 MHz ± .15 dB -8.23 to 1.76 dBm, ± 0.3 dB -18.23 to -8.24 dBm, ± .35 dB -38.23 to -18.24 dBm ± .4 dB -78.23 to -38.24 dBm.

135 Ω/150 Ω output: 10 kHz to 2.09 MHz, ± .17 dB -8.23 to +1.76 dBm, ± .32 dB -18.23 to -8.24 dBm, ± .37 dB -38.23 to -18.24 dBm, ± .42 dB -78.23 to -38.24 dBm.

600 Ω output: 200 Hz to 109.9 kHz, ± .30 dB -3.00 to +7.00 dBm/ ± .40 dB -13.00 to 2.99 dBm, ± .45 dB -33.00 to -12.99 dBm ± .50 dB -72.99 to -32.99 dBm.

1. Add ± .03 dB for 0° to 55°C operation.

2. Warm-up time is 30 minutes.

Amplitude blanking: <-85 dBm output during blanking

Spectral purity

Phase Noise: <-64 dB, Models 3336A and 3336B, for a 3 kHz band, 2 kHz either side of a 20 MHz carrier.

Harmonic level: -35 dB, 10 Hz to 30 Hz; -50 dB, 30 Hz to 50 Hz; -60 dB, 50 Hz to 1 MHz; -55 dB, 1 MHz to 5 MHz; -50 dB, 5 MHz to 20 MHz.

Spurious: all non-harmonically related signals will be more than 70 dB below the fundamental or -100 dBm (-115 dBm with option 005 except 150 or 600 Ω), whichever is greater.

Phase offset

Range: ± 719.9° with respect to arbitrary starting phase or assigned zero phase.

Resolution: 0.1°.

Increment accuracy: ± 0.2°

Ambient stability: ± 1.0 degree of phase per degree C

Frequency sweep

Sweep time: linear sweep, .01 sec. to 99.99 sec, single log sweep, 2 sec to 99.99 sec, continuous log sweep, .1 sec to 99.99 sec

Maximum sweep width: specified frequency range of selected output

Minimum sweep width: log sweep, 1 decade; linear sweep, minimum sweepwidth (Hz) = .1 (Hz/sec) x sweep time (sec).

Phase Continuity: sweep is phase continuous over full frequency range.

Sweep flatness: ± .15 dB, fast leveling, 10 kHz to 20 MHz, .03 s sweep time; ± .15 dB, normal leveling, 50 Hz to 1 MHz, .5 s sweep time.

Amplitude modulation: modulation depth, 0 to 100%. Modulation frequency range, 50 Hz to 50 kHz.

Phase modulation: range, 0 to ± 850°. Linearity, ± .5% from best fit straight line. Modulation frequency range, dc to 5 kHz.

External leveling: input from an external voltage source to regulate the signal amplitude at a remote point.

Options

Option 001, 3336A Synthesizer/Level Generator:

1.6/5.6 mm 75 Ω connector mates with WECO 358A. (3336B)

124 Ω connector mates with WECO 372A.

Option 004, high stability frequency reference:

Accuracy: ± 5 x 10⁻⁸

Aging rate: ± 5 x 10⁻⁸/week after 72 hours continuous operation ± 1 x 10⁻⁷/month after 15 days continuous operation.

Ambient stability: ± 5 x 10⁻⁷ maximum, 0° to 55°C.

Option 005, high accuracy attenuator: Improves level accuracy and spurious level. See main specifications.

General

Operating environment

Temperature: 0° to 55°C.

Relative humidity: ≤85%, 0° to 40°C.

Altitude: ≤15,000 ft., ≤4600 meters.

Storage environment

Temperature: -50° to +65°C.

Altitude: ≤50,000 ft., ≤15,240 meters.

Power Requirements: 100/120/220/240 V, +5%, -10%, 48 to 66 Hz, 60 VA, (100 VA with all options), 10 VA standby.

Size: 132.6 high x 425.5 wide x 497.8 deep; 5¼" x 16¾" x 19⅞".

Weight: Net wt., 10 kg. (22 lbs). Shipping wt., 15.5 kg. (34 lbs).

Ordering Information

	Price
3586A Selective Level Meter (CCITT)	\$9200
Opt 001: 1.6/5.6 mm 75 Ω Connector	add \$100
Opt 003: Transmission Impairments Option	add \$475
Opt 004: High Stability Frequency Reference	add \$625
3586B Selective Level Meter (N. American)	\$9200
Opt 001: 75 Ω Connector mates with WECO 358A and 124 Ω Connector mates with WECO 372A	add \$100
Opt 002: 1740 Hz Equivalent Noise Bandwidth Filter Replaces 2000 Hz.	N/C
Opt 003: Transmission Impairments Option	add \$475
Opt 004: Same as 3586A	add \$625
3336A Synthesizer/Level Generator (CCITT)	\$4100
Opt 001: 75 Ω 1.6/5.6 mm Connector	add \$100
Opt 004: High Stability Frequency Reference	add \$550
Opt 005: High Precision Attenuator	add \$550
3336B Synthesizer/Level Generator (N. American)	\$4100
Opt 001: 75 Ω WECO 358A, 124 Ω WECO 372A	add \$100
Opt 004, 005: Same as 3336A	