

AM/FM Synthesized Signal Generators



Models 3216/3215 (3216 shown)

- 100 kHz to 140 MHz Frequency Range
- AM/FM, INT/EXT Modulation
- RF Output Level in 0.1 dB Steps
- Storage and Recall of 100 Test Conditions
- GPIB Option
- 55 dB Stereo Separation (3216 only)

Frequency synthesis and microprocessor control give these generators wide versatility coupled with ease of use. User-friendly keypads provide control of frequency, modulation parameters and output levels. Operating setups can be stored and recalled for routine tests at up to 100 addresses and recalled setups can be modified temporarily without disturbing the programmed entries. Models are identical in specifications and features except the 3216 includes FM stereo operation. The 3216 front panel includes large,

bright LEDs for AM/FM/Pilot or total modulation, memory, RF frequency and RF output. The 19 kHz pilot deviation can be set from 0-10.0 kHz. FM stereo modes of operation include L, R, Main (L+R), Sub (L-R) and Pilot. Stereo modulation can be applied via the left and right external inputs. The GPIB listener option makes the generator ideal for AM/FM receiver production and QC applications where high throughput is necessary.

KEY SPECIFICATIONS

AM/FM FREQUENCY RANGE

Frequency Range
100 kHz to 140 MHz
Displayed Resolution
6 digits, 100 Hz < 30 MHz ≥ 1 kHz
Accuracy
± 50 ppm
Drift
± 50 ppm

OUTPUT LEVEL

Range
- 20.0 to + 126.0 dBμ
(0 dBμ = 1 μV into open circuit)
Reference Level Accuracy
± 1 dB
Attenuator Accuracy
± 1.5 dB > 0 dBμ
± 2.0 dB < 0 dBμ
Spurious
< - 30 dBc, harmonic
< - 50 dBc, non-harmonic (in band)

MODULATION

Internal Modulation Frequencies
400 Hz, 1 kHz (accuracy < ± 5 %)

FM MODULATION

Deviation Range
0-99.9 kHz peak maximum
(carrier > 1 MHz)
1/10 of displayed value
(carrier < 1 MHz)
External Modulation
20 Hz to 70 kHz ± 3 dB, ref 1 kHz

AM MODULATION

Range
0 - 60.0% ± 10% rdg
External Modulation
50 Hz - 10 kHz ± 1 dB, ref 1 kHz at 30%

AM/FM EXTERNAL MODULATION

Frequency Range
FM: 20 Hz - 100 kHz ± 1 dB
AM: 20 Hz - 10 kHz ± 1 dB

FM STEREO MODULATION (3216 ONLY)

Pilot Frequency
19 kHz ± 2 Hz
Pilot Deviation
0 - 10.0 kHz
Separation
55 dB or more (1 kHz reference)

Modes

L, R, Main (L+R), Sub (L-R)

MEMORY

100 front panel settings and 4 commonly used Rf output levels

POWER REQUIREMENTS

100, 120, 220, 240 V ac ± 10%
50/60 Hz, approx 35 VA

PHYSICAL

Size (W x H x D)
16³/₄ x 3⁷/₈ x 11³/₄ in.
426 x 100 x 300 mm
Weight
16.5 lbs., 7.5 kg

SUPPLIED ACCESSORIES

BNC-BNC 50 Ω Cable
Power Cord
Spare Fuse

AVAILABLE OPTIONS

Matching Pad 50:75 Ω (LIM-075)
Dummy Antenna 50:300 Ω (LDA-1554-50)
Test Loop Antenna (LPA-070)
Rackmount Adapter (LR-2409)
GPIB Listener Interface (-231)
dBm 50 Ω Display (-247)
Model 3216 only
SCA Composite Input (-228)
Composite MPX Output (-236)
50 and 75 μs Pre-Emphasis (-238)
dBf 75 Ω and 300 Ω Indication and
75 μs Pre-Emphasis (-240)