TABLE 1-1. PERFORMANCE SPECIFICATIONS.

RF INPUT

Frequency Range	: 2 MHz to 1.5 GHz.
Tuning	: Automatic.
Carrier Level	: 10 millivolts to 1 volt, Frequency < 520 MHz. : 30 millivolts to 1 volt, Frequency < 1500 MHz.
Maximum Input	: 1 watt (7 V rms).
Input Impedance	: 50 ohms nominal.

FREQUENCY MODULATION

Measurement	: + peak, -peak, and peak average.
Rates	: < 20 Hz to 15 kHz.
Range	: 0 to 150 kHz peak.
Resolution	: 10 Hz, 0 to 15.00 kHz deviation. : 100 Hz, 15.0 to 150.0 kHz deviation.
Accuracy(1)	: 1% of reading, 50 Hz to 5 kHz. : 2% of reading, 20 Hz to 7.5 kHz.
Distortion	: < 0.25% for deviations < 75 kHz.
Residual FM	: < 150 Hz rms at 1500 MHz carrier, decreasing linearly with frequency to a floor of < 5 Hz rms, with 3 kHz filter. : < 200 Hz rms at 1500 MHz carrier, decreasing linearly with frequency to a floor of < 15 Hz rms, with 15 kHz filter.
Incidental FM	: < 100 Hz peak deviation at 50% AM, 1 kHz modulation rate, with 3 kHz filter.

AMPLITUDE MODULATION

Measurement	: + peak, -peak, and peak average.
Rates	: < 20 Hz to 15 kHz.
Range	: 0 to 99.9%.
Resolution	: 0.01% from 0.00 to 15.00% AM. : 0.1% from 15.0 to 150.0% AM.

TABLE 1-1. PERFORMANCE SPECIFICATIONS.

Accuracy		10% to 90%, AM.	<10 % & >90% AM.
	from 50 Hz to 5 kHz.	1% of reading.	3% of reading.
	from 20 Hz to 7.5 kHz.	2 % of reading.	6% of reading.
Distortion	: <0.5% for depths up to 90%.		
Residual AM(2)	: 0.15% rms with 3 kHz filter. : 0.25% rms with 15 kHz filter.		
Incidental AM	: <1.0% AM peak at 100 kHz peak deviation.		
AUDIO FILTERS			
Low-pass	: 3 and 15 kHz, 3-pole Butterworth.		
De-emphasis	: 750 μs.		
Accuracy	: ± 4 % for 3 dB corner and time constant.		
AM CALIBRATOR	: internal, 33.33% depth, 0.25% accuracy.		
FM CALIBRATOR	: internal, 46.08 kHz deviation, 0.1% accuracy.		
GENERAL			
IEEE-488	: Complies with IEEE-488-1978. Implements AH1, SH1, T6, TE0, L4, LE0, SR1, RL1, PP0, DC1, DT1, C0, and E1.		
Power Requirements	: 100, 120, 220, or 240 volts, 50-400 Hz, single phase, approx. 24 VA.		
Operating Temperature	: 0 to 55 degrees C.		
Dimensions	: 8.6 inches (21.8 cm) wide, 4.1 inches (10.3 cm) high, 11.0 inches (27.8 cm) deep.		
Weight	: 7 lbs (3.18 kg).		
SUPPLEMENTAL SPECIFICATIONS			
AF OUT(3)	: Uncalibrated, approx. 1 V into 600 ohms at 1000 counts on display. Source impedance 600 ohms.		
IF OUT(3)	: Approximately 300 to 360 mV into 600 ohms, frequency 400 kHz nominal. Source impedance 600 ohms.		

TABLE 1-1. PERFORMANCE SPECIFICATIONS.

MODEL 8211 OPTION -01

AUDIO-FREQUENCY RESPONSE

Filters	The 15 kHz low-pass filter is replaced by a 30 kHz low-pass filter; corner accuracy ± 4%.

FREQUENCY MODULATION

Deviation Accuracy	: 1% of reading for modulation frequencies between 50 Hz and 10 kHz. : 2% of reading, 20 Hz to 15 kHz.
Modulation Bandwidth	: < 20 Hz to 30 kHz.
Residual FM	: < 400 Hz rms at 1.5 GHz, decreasing linearly with frequency to a floor of < 25 Hz rms, with 30 kHz filter.

AMPLITUDE MODULATION

Accuracy	10% to 90%, AM.	< 10 % & > 90% AM.
from 50 Hz to 10 kHz.	1% of reading.	3% of reading.
from 20 Hz to 15 kHz.	2 % of reading.	6% of reading.

Modulation Bandwidth	< 30 Hz to 30 kHz.
Residual AM (2)	: < 0.35% AM rms for input levels above 100 mV rms, with 30 kHz filter.

MODEL 8211 OPTION -02

AUDIO-FREQUENCY RESPONSE

Filters	The 15 kHz low-pass filter is replaced by a 50 kHz low-pass filter; corner accuracy ± 4%.

FREQUENCY MODULATION

Deviation Accuracy(1)	1% of reading for modulation frequencies between 50 Hz and 16.7 kHz. 2% of reading, 20 Hz to 25 kHz.
Modulation Bandwidth	< 20 Hz to 50 kHz.
Residual FM	: < 950 Hz, rms at 1.5 GHz, decreasing linearly with frequency to a floor of < 55 Hz rms, with 50 kHz filter.

TABLE 1-1. PERFORMANCE SPECIFICATIONS.

AMPLITUDE MODULATION

Depth Accuracy(1)		10% to 90%, AM.	< 10% & 90% AM.
	from 50 Hz to 16.7 kHz.	1% of reading.	3% of reading.
	from 20 Hz to 25 kHz.	2 % of reading.	6% of reading.

Modulation Bandwidth < 20 Hz to 50 kHz.

Residual AM (2) : < 0.55% AM rms for input levels above 100 mV rms, with 50 kHz filter.

NOTES

(1) Peak residual must be accounted for.
(2) Level > 100 millivolts, Frf < 520 MHz.
Above 520 MHz, residual increases linearly with frequency.
(3) These specifications are for application purposes and, although typical, are not warranted.