SPECIFICATIONS

Operating/Display

Modes:	AM/FM Monitor AM/FM Generate Audio Synthesizer Spectrum Analyzer Duplex Generator Sweep Generator Frequency Counter Digital Voltmeter Wattmeter Oscilloscope Signal Strength Meter SINAD/Distortion Meter

RF Signal Generator

FREQUENCY	
Range:	400 kHz – 1 GHz
Resolution:	100 Hz
Accuracy:	Refer to Accuracy of Master Oscillator
Stabilization Time:	.1 Second
OUTPUT	
Range FM:	–130 dBm to 0 dBm
Range AM:	–130 dBm to –3 dBm
Accuracy:	±2 dB from –80 dBm to –130 dBm (RF I/O PORT) ±4 dBm for all other output levels and ports. 3 MHz to 1 GHz
SWEEP GENERATOR	
Range:	400 kHz – 1 GHz
Resolution:	100 Hz
Output:	–130 dBm to 0 dBm
Sweep Width:	Selectable up to ±5 MHz of center freq.
Scope Coupling:	Synchronized scope trace to the sweep signal
Accuracy:	Same as Signal Generator
DUPLEX GENERATOR	
Range:	400 kHz – 1 GHz
Resolution:	100 Hz
Output:	–130 dBm to 0 dBm
Frequency Offset:	0 MHz to ±55 MHz in 5 kHz steps
Accuracy:	Same as Signal Generator
SPECTRAL PURITY	
Spurious:	–35 dB below fundamental up to ±20 MHz of center frequency
Harmonics:	–20 dB below fundamental
FM MODULATION	
Deviation:	99.5 kHz
Accuracy:	5% of setting ±25 Hz @ 1 kHz (NB) 5% of setting ±250 Hz @ 1 kHz (WB)
Residual FM:	20 Hz max @ 300 Hz to 3 kHz from fc
External/Internal Frequency Range:	5 Hz to 20 kHz, ±2 dB
AM MODULATION	
Range:	0-90%
Accuracy:	10% of modulation
Residual AM:	1.0% max @ 300 to 3 kHz from fc
External/Internal Frequency Range:	100 Hz to 10 kHz, ±1 dB
PHASE MODULATION	**(Optional)**
Range:	0.5 to 10 radians
Accuracy:	±8% at 1KHz
Resolution:	.1 radians (.01 below 2.00 radians)
External/Internal Frequency Range:	300 to 3000 Hz

Audio Modulation Synthesizer

Modulation types:	1 kHz tone, PRIVATE LINE, DIGITAL PRIVATE LINE, Single Tone, DTMF, Two-Tone Paging, 5/6 Tone Paging, International Select V, 20 Tone General Sequence, Tone Remote Control, External inputs from both a supplied microphone and BNC input.
Frequency Range:	10 Hz to 20 kHz ±1 dB
Mod Output Level:	Programmable into 7.95 v peak
Mod Output Impedance:	100 ohms nominal
1 kHz Tone Distortion:	Not to exceed 1%
External Modulation Inputs:	Front panel microphone and a BNC jack are summed.
BNC Input Impedance:	600 ohms nominal
Microphone Supplied:	HMN-1056D
Microphone Input Conditioning:	Internal audio limiting providing IDC and pre-emphasis.

RF Receiver

FREQUENCY	
Range:	400 kHz – 1 GHz
Resolution:	100 Hz
Accuracy:	Refer to Accuracy of Master Oscillator
Spurious Response:	40 dB typical
SENSITIVITY (Above 10 MHz)	
Narrowband FM:	2.0 uV for 10 dB EIA SINAD
Wideband FM:	10 uV for 10 dB EIA SINAD
FREQUENCY ERROR METER	
Type of Display:	Autoranging
Resolution:	1 Hz
FM DEVIATION MEASUREMENT	
Demod Range:	Up to ±5 kHz in Narrowband Up to ±75 kHz in Wideband
Accuracy:	±5% plus peak residual FM
Frequency Response:	Selectable per the following: Low Pass Filters 20 kHz, 3 kHz, 300 Hz High Pass Filters 5 Hz, 300 Hz, 3 kHz
Demodulated Output Level:	.8 v peak per 1 kHz peak Deviation in Narrowband and per 10 kHz Deviation in Wideband
Demodulation Output Impediance:	100 ohms nominal
Deviation Alarm:	Audible, set via keypad in 100 Hz increments

SPECIFICATIONS

Receiver (Cont)

AM MODULATION MEASUREMENTS	
Demodulation Range:	0 to 100%
Accuracy:	±5% for levels below 80%
Frequency Response:	Selectable per the following: Low Pass Filters 20 kHz, 3 kHz, 300 Hz High Pass Filters 300 Hz, 3 kHz
Demodulated Output Level:	.8 v peak per 10% AM modulation
PHASE DEMODULATION MEASUREMENTS	**(Optional)**
Demod Range:	Narrowband= 1 radian Wideband = 10 radians
Accuracy/ Frequency Response:	±5% at 1 kHz, ±7.5% 300 Hz to 3.5 kHz with de-emphasis filter cornered at 100 Hz

Metering & Measurement

SPECTRUM ANALYZER – SEE AND HEAR™	
Frequency Range:	400 kHz to 1 GHz
Dispersion:	Selectable from keypad per following: 200 kHz window – (20 kHz per div) 500 kHz window – (50 kHz per div) 1 MHz window – (100 kHz per div) 2 MHz window – (200 kHz per div) 5 MHz window – (500 kHz per div) 10 MHz window – (1 MHz per div)
Optional :	20 MHz window – (2 MHz per div) 50 MHz window – (5 MHz per div) 100 MHz window – (10 MHz per div)
Dynamic Range:	60 dB
Bandwidth:	6 kHz/30 kHz automatically selected
Display Range:	+50 to –95 dBm
Optional Markers:	Freeze, Max Hold, Peak Hold Delta or Absolute level and frequency
SIGNAL STRENGTH INDICATOR	
Range:	3 MHz to 1 GHz
Accuracy:	±4 dB
Sensitivity:	–100 dBm (antenna port rating)
WATTMETER (RF I/O PORT)	
Frequency Range:	3 MHz to 1 GHz
Measurement Range:	.1 watt to 125 watts
Input Impedance:	50 ohms with maximum VSWR of 1.5:1
Accuracy:	±10%
Protection:	Over temperature alarms
TRACKING GENERATOR	
Frequency Range:	400 kHz to 1 GHz
Tracking Display Sweep Range:	200 kHz window – (20 kHz per div) 500 kHz window – (50 kHz per div) 1 MHz window – (100 kHz per div) 2 MHz window – (200 kHz per div) 5 MHz window – (500 kHz per div) 10 MHz window – (1 MHz per div) 20 MHz window – (2 MHz per div) 50 MHz window – (5 MHz per div)
Display Range:	0 to –80 dBm

Metering & Measurement (Cont)

CABLE FAULT	**(Optional)**
Method:	Standing Wave Analysis
Measure:	Fault distance, cable length
Reading:	Feet and meters
Accuracy:	10%
OSCILLOSCOPE	
CRT Size:	9 cm x 11 cm (approx. 7 inch diagonal) raster scan display with four intensity levels
Frequency Response:	0 to 50 kHz
Vertical Input Ranges:	Selectable per the following: 10 mV, 20 mV, 50 mV, 100 mV, 200 mV, 500 mV, 1v, 2v, 5v, 10v per division
Accuracy:	5% of full scale all ranges
Sweep Ranges:	Selectable per the following: 20 usec, 50 usec, 100 usec, 200 usec, 500 usec, 1 msec, 2 msec, 5 msec, 10 msec, 20 msec, 50 msec, 100 msec, 200 msec, 500 msec, 1 sec per division
Trigger:	Automatic, normal, and single sweep
Optional Markers:	Delta Voltage, Delta Frequency, Delta Period
DIGITAL VOLTMETER	
Meter type:	RMS
Frequency Range:	DC plus AC of 50 Hz to 20 kHz
DC Voltage Ranges:	1.0 V, 10.0 V, 100 V full scale
Accuracy:	1% full scale ±1 least significant digit
AC Voltage Ranges:	1.0V, 10.0 V, 70 V full scale
Accuracy:	5% full scale ±1 least significant digit
Freq. Response:	3 dB end points @ 50 Hz and 20 kHz
FREQUENCY COUNTER	
Frequency Range:	5 Hz to 500 kHz plus Auto Tune
Period Counter Range:	5 Hz to 20 kHz
Input Level:	.1 v RMS minimum input level
Resolution:	.1 Hz, 1 Hz, 10 Hz, 100 Hz, and 1 kHz varying by frequency range
Auto Tune:	Monitor mode, 20 MHz to 1 GHz, unit will scan and find signals greater than –30 dBm
Accuracy:	See **TIME BASE**
SINAD/DISTORTION METER	
Input Level:	.1 V to 10 V RMS
SINAD Accuracy:	±1 dB at 12 dB SINAD
Distortion Range:	1% to 20%
Distortion Accuracy:	±0.5% of distortion or ±10% of reading whichever is greater
Optional:	C-Message Filter; CCITT Filter w/600 ohm switchable load
TONE SEQUENCE DECODE	
Modulation types:	PRIVATE LINE, DIGITAL PRIVATE LINE, Single Tone, DTMF, Two-Tone Paging, 5/6 Tone Paging, International Select V, 20 Tone General Sequence.
Frequency Accuracy:	±3% from 300 Hz to 3 kHz
Duration Accuracy:	±12 msec for tones greater than 30 msec and 300 Hz

SPECIFICATIONS

Metering & Measurement (Cont)

RS232 PORT (Requires special cable)/Optional IEEE488.2
Bidirectional port provided with capability to respond to serial (optional parallel) input command vocabulary to activate functions and return measured results. Baud rates to 9600 BPS with selectable start, stop and parity bits.

TIME BASE	
Standard TCXO:	Aging 1 ppm/yr, Temperature 1 ppm
Optional OCXO:	Aging .5 ppm/yr, Temperature .05 ppm

Power and Environmental

AC:	100-130 VRMS or 200-260 VRMS @ 50 Hz to 440 Hz
DC:	+11 TO +16 VDC
Battery Option:	13.6 V, 50 minutes typical
Dimensions:	8.5" high x 16" wide x 17" deep (21.6 cm x 40.7 cm x 43.2 cm) excluding accessories, battery pack and cover
Weight:	33 pounds (Basic model excluding accessory cover)
Temperature:	0°C to +50°C (operating) –40°C to +85°C (storage)

Interface Ports

Printer/Remote Control:	RS-232 DB25 (female)
Color Monitor:	Standard CGA, RGB DB9 (female)

Model Nomenclature

R-2600C	**Communication System Analyzer w/Tracker**
R-2600CHS	**R-2600C with OCXO Timebase**
R-2600CNT	**Comm. System Analyzer w/Tracker Deleted**
R-2600CNTHS	**R-2600CNT with OCXO Timebase**
R-2600CCBS	**Cell Site Auto Test System (Motorola sites)**
R-2600CSP	**Cell Site Test Unit w/o Accessories or Test Software**

Model Nomenclature (Cont)

Factory Installed Option Chart
(Order as additional line items with Basic Model R-2600)

EAMPS ONLY	**RLN-4259A**
ETACS ONLY	**RLN-4260A**
JTACS, NTACS	**RLN-4261A**
EAMPS, NAMPS	**RLN-4262A**
CABLE FAULT	**RLN-4306A**
IEEE 488.2	**RLN-4329A**
C-Message Filter	**RLN-4034A**
CCITT Filter	**RLN-4361A**
Hi Performance Spectrum Analyzer/ Marker Package	**RLN-4423A**
Phase Mod/ Demod	**RLN-4484A**
Progr. Test Setup Memory	**RLN-4485A**

Accessories Supplied:	
Oscilloscope Probe	RTL-4011A
BNC to N Adapter	58-84300A98
DC Power Connector Kit	RPX-4097A
Antenna	TEKA-24A
Microphone	HMN-1056D
Signal Generator Termination (50 Ohm)	58-80386B73
Operator Manual	68-80386B72
Power Cord	30-80397A62
Spare RF Fuses	GG6530277C002

Optional Accessories:	
Battery Pack	RPN-4000A
Canvas Case	15-80357B77
Transit Case	15-80388B06
Maintenance Manual	RLN-4120B
RF Detector Probe	RLN-4075A
RF 50 Ohm Terminated Probe	58-80345B96
Telescoping Antenna	RTA-4000A
RGB Cable (DB9 male to DB9 male)	30-80387B60
RS-232 Interface Cable (DB25 male to DB9 female)	30-80387B59
RS-232 Adapter for Computer Port (DB9 male to DB25 female)	HLN-9390A
Serial/Parallel Dot Matrix Printer	RLN-4375A
Serial Printer Cable (Special) (DB25 male to DB25 male)	30-80387B58
Rubidium Standard	R-1192A
CBS Acessory Kit	REX-1083A
CBS Auto Test Software (Motorola)	RVN-5001A

MOTOROLA

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PRINTED IN THE U.S.A. 1/94 30K

For further information, in the U.S. call 1-800-505-TEST (1-800-505-8378).
Outside the U.S. contact your nearest Motorola representative.

Support Services

For service on your Motorola test equipment in the U.S. contact the Motorola Test Equipment Service Depot:
1308 Plum Grove Road
Schaumburg, IL 60173
1-800-323-6967

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90226-4001 R3-9-81E