

JD7108B

Signal Analyzer



Specifications

The JD7108B specifications apply under the following conditions.

- After 30 minute warm-up and then two hours of operation temperature.
- The instrument is operating within a valid calibration period.
- Data with no tolerance is considered as typical values.
- The 'typical' or 'nominal' values are defined as follows:
 Typical: Expected performance of the instrument operating under 20 °C to 30 °C after being at this temperature for two hours.
 Nominal: A general, descriptive term or parameter.

Spectrum Analyzer (Standard)

Frequency

		Supplemental Information
Frequency range	100 kHz to 7.2 GHz	

Internal 100 MHz Frequency Reference

Accuracy	± 0.1 ppm (25°C ± 5 °C) + aging
Aging	± 2.5 ppm/10years

Frequency Span

Range	0 Hz (Zero Span) 10 Hz to 7.2 GHz
Resolution	1 Hz

Resolution Bandwidth (RBW)

-3 dB bandwidth	1 Hz to 3 MHz	1-3-10 sequence
Accuracy		$\pm 10\%$ (nominal)

Video Bandwidth (VBW)

-3 dB bandwidth	1 Hz to 3 MHz	1-3-10 sequence
Accuracy		$\pm 10\%$ (nominal)

Single sideband (SSB) Phase Noise

Fc = 1 GHz, RBW 10 kHz, VBW 1 kHz, RMS detector

Carrier offset:		
30 kHz	< -100 dBc/Hz	
100 kHz	< -102 dBc/Hz	
1 MHz	< -115 dBc/Hz	

Measurement Range

	DANL to +30 dBm
Input attenuator range	0 to 55 dB, 5 dB steps

Maximum Safe Input Level

Average continuous power	+ 36 dBm; 3 minutes maximum	Nominal
DC voltage	± 50 VDC	

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Displayed Average Noise Level (DANL)

1 Hz RBW, 1 Hz VBW, 50 Ω termination, 0 dB attenuation, RMS detector

Preamplifier Off:	
10 MHz to 1 GHz	-145 dBm
>1 GHz to 2 GHz	-143 dBm
>2 GHz to 3 GHz	-140 dBm
>3 GHz to 6 GHz	-135 dBm
>6 GHz to 7.2 GHz	-130 dBm
Preamplifier On:	
10 MHz to 1 GHz	-160 dBm
>1 GHz to 2 GHz	-158 dBm
>2 GHz to 3 GHz	-156 dBm
>3 GHz to 6 GHz	-154 dBm
>6 GHz to 7.2 GHz	-145 dBm

Display Range

Log scale and units	1 to 20 dB/division in 1 dB steps dBm, dBmV, dBμV	10 divisions displayed
Linear scale and units	10 divisions displayed V, mV, mW, W	
Detectors	Normal, positive peak, sample, negative peak, sample, average	
Number of traces	6	
Trace functions	Clear/write, maximum hold, minimum hold, capture, load View on/off	

Total Absolute Amplitude Accuracy

Preamplifier off, power level > -50 dBm, auto coupled (25°C ± 5°C)

10 MHz to 4.350 GHz	±1.00 dB		
>4.350 GHz to 5.750 GHz	±1.25 dB	Attenuation	≤ 40 dB
	±1.75 dB	Attenuation	> 40 dB
>5.750 GHz to 7.2 GHz	±1.50 dB	Attenuation	≤ 40 dB
	±2.00 dB	Attenuation	> 40 dB

Reference Level

Setting range	-120 dBm to +100 dBm
Setting resolution log scale	0.1 dB
Linear scale	1% of reference level

Markers

Marker types	Normal, delta, delta pair noise, frequency count marker
Number of markers	6
Marker functions	Peak, next peak, peak left, peak right, minimum search Marker to center/start/stop

RF Input VSWR

1.5:1	typical
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Second Harmonic Distortion (Second Harmonic Intercept: SHI)

Mixer level = -25 dBm	
100 kHz to 1 GHz	<-65 dBc
1 GHz to 7.2 GHz	<-70 dBc

Third Order Inter-modulation (Third Order Intercept: TOI)

1 GHz	+12 dBm
2 GHz	+15 dBm

Spurious

Inherent residual response

Input terminated, 0 dB attenuation, preamplifier off, RBW @10 kHz

100 kHz to 3.2 GHz	-90 dBm
3.2 GHz to 7.2 GHz	-85 dBm
Exceptions	<-75 dBm @ 4281 to 4292 MHz <-60 dBm @ 95.836 MHz, 191.672 MHz
Input related spurious	<-70 dBc
Exceptions	-50 dBc @ 175 MHz ± 0.8 MHz

Sweep Time

Range	80 ms to 1000 s	
	24 μs to 200 s	Span = 0 Hz (zero span)
Sweep mode	Continuous, single	

Gated Sweep

Trigger source	External
Gate length	1 μs to 100 ms
Gate delay	0 to 100 ms

Trigger

Trigger source	Free run, video, external
Trigger delay	
Range	0 to 200 s
Resolution	6 μs

Measurements

Channel power
Occupied BW
Spectrum emission mask
Adjacent channel power
Spurious emissions
AM/FM audio demodulation
RF source

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Power Meter (Standard)

Power Meter

		Supplemental Information
Display range	-100 to +100 dBm	
Offset range	0 to 60 dB	
Resolution	0.01 dB or 0.1 xW	x = m, μ, p

Internal Power Sensor

Frequency range	10 MHz to 7.2 GHz
Span	1 kHz to 100 MHz
Dynamic range	-120 to +30 dBm
Maximum power	+30 dBm
Accuracy	Same as spectrum analyzer

External Power Sensor

Directional power sensors	JD731A	JD733A
Frequency range	300 to 3800 MHz	150 to 3800 MHz
Dynamic range	Average 0.15 to 150 W Peak 4 to 400 W	Average 0.1 to 50 W Peak 0.1 to 50 W
Connector type	N-female on both ends	
Measurement type	Forward/reverse average power, forward peak power, VSWR	
Accuracy	±4 % + 0.05 W ¹	

Terminating power sensors	JD732A	JD734A	JD736A
Frequency range	20 to 3800 MHz	20 to 3800 MHz	20 to 3800 MHz
Dynamic range	-30 to 20 dBm	-30 to 20 dBm	-30 to 20 dBm
Connector type	Type N (m)	Type N (m)	Type N (m)
Measurement type:	Average	Peak	Average and peak
Accuracy	±7 % ¹	±7 % ¹	±7 % ¹

¹ CW condition at 25°C ± 10°C

GPS Receiver (Option 010)

GPS Indicator

Latitude, longitude, altitude

High Frequency Accuracy

Spectrum, interference, and signal analyzer		
GPS lock	±25 ppb	
Hold over:	±50 ppb	3 minutes after satellite locking
Connector	SMA, female	

Interference Analyzer (Option 011)

Measurements

Spectrum analyzer	Sound indication, AM/FM audio demodulation
Spectrogram	Collect data up to 72 hours
RSSI	Collect data up to 72 hours

(Received Signal Strength Indicator)

Channel Scanner (Option 012)

Frequency range	100 kHz to 7.2 GHz
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Measurement range	-110 to +30 dBm
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Measurements

Channel scanner	1 to 20 channels
Frequency scanner	1 to 20 frequencies
Custom scanner	1 to 20 channels or frequencies

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GSM/GPRS/EDGE Signal Analyzer (Option 022)

Supplemental Information

Frequency range	450 to 500 MHz 820 to 965 MHz 1075 to 1995 MHz	
Input signal range	-40 to +30 dBm	
Burst power	±1.0 dB	
Frequency error	±10 Hz + time base error	99% confidence level
GMSK modulation quality:		
Phase RMS accuracy	±1.0 degree	(0 < Phase RMS < 8)
Residual error	0.7 degree	Typical
Phase peak accuracy:	±2.0 degree	(0 < Phase peak < 30)
8 PSK modulation quality:		
EVM accuracy	±1.5%	(2% < EVM < 8%)
Residual error	2.5%	
RF power vs time	±0.25 symbol	

Measurements

	Option 022	Auto measure	Option 042
Channel power	Power vs time (slot)	Channel power	Channel/frequency
Channel power	Burst power	Channel power	Scanner
Spectral density	Max/min point	Occupied BW	Power
Peak to average power	Power vs time (frame)	Spectrum emission mask	Group (traffic, control)
Occupied BW	Frame average power	Spurious emissions	BSIC (NCC, BCC)
Occupied bandwidth	Burst power (slot 0 to 7)	Burst/frame average power	Multipath profile
Integrated power	TSC (slot 0 to 7)	Frequency error	(Six strongest)
Occupied power	Constellation	Phase error rms/peak	SNR, delay
Spectrum emission mask	Burst power	EVM rms/peak*	Longitude, latitude, satellite
Peak level @ defined range	Modulation type	Origin offset	Modulation analyzer
Spurious emissions	Frequency error	C/I*	Frame avg power trend
Peak level @ defined range	Phase error rms/peak		C/I trend,
	IQ origin oOffset		Frame average power
	TSC		BSIC
	BSIC		Frame No, frame time
	C/I*		C/I
	EVM rms/peak*		Frequency error
	EVM 95 th *		Burst
			Modulation type
			Longitude, latitude, satellite

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WCDMA/HSDPA Signal Analyzer
(Option 023 for WCDMA, Option 024 for HSDPA)

Supplemental Information

Frequency range	Band I to band XIV	
Input signal level	-40 to + 30 dBm	
RF channel power accuracy	±1.0 dB, ±0.7 dB (typical)	
Occupied bandwidth accuracy	±100 kHz	
Adjacent channel leakage ratio: (ACLR)	<-56 dB, ±0.7 dB@5 MHz offset <-58 dB, ±0.8 dB@10 MHz offset	
WCDMA modulations	QPSK	
HSDPA modulations	QPSK, 16 QAM, 64 QAM	
Frequency error	±10 Hz + time base error	99% confidence level
EVM accuracy	±2.0%, 2% ≤ EVM ≤ 20%	
Residual EVM	2.5%	Typical
Code domain power	±0.5 dB relative power ±1.5 dB absolute power	Code channel power > -25 dB
CPICH accuracy (dBm)	±0.8 dB	Typical

Measurements

Option 023 and 024

Option 043

Channel power

- Channel power
- Spectral density
- Peak to average power

Occupied BW

- Occupied bandwidth
- Integrated power
- Occupied power

Spectrum emission mask

- Peak level @ defined range

ACLR

- Reference power
- Abs power@ defined range
- Rel power@ defined range

Multi-ACLR

- Lowest reference power
- Highest reference power
- Abs power@ defined range
- Rel power@ defined range

Spurious emissions

- Peak level @ defined range

Constellation

- Channel power
- Rho, EVM
- Peak CDE
- Frequency error
- Time offset
- Carrier feed through
- Scramble code
- Code domain power**
- Channel power
- CPICH power (abs/rel)
- PCCPCH power (abs/rel)
- SCCPCH power (abs/rel)
- PSCH power (abs/rel)
- SSCH power (abs/rel)
- PICH power (abs/rel)
- Max/avg active power
- Max/avg inactive power
- Scramble code

Codogram

- Code utilization
- Longitude, latitude

RCSI

- CPICH, PCCPCH, SCCPCH
- PSCH, SSCH, PICH

CDP Table

- Code, spreading factor
- Channel type, power
- Code utilization

Auto measure

- Channel power
- Occupied BW
- Spectrum emission mask
- ACLR
- Multi-ACLR
- Spurious emissions
- Rho, EVM
- Peak CDE
- Frequency error
- Time offset
- Carrier feed through
- Scramble code
- CPICH power
- Noise floor

Scramble code scanner

- (Six strongest)
- Channel power
- CPICH dominance
- Scramble code
- Ec/Io, CPICH power, delay

Multipath profile

- Channel power
- Multipath power
- Ec/Io, delay

Code domain power

- Channel power
- Scramble code
- CPICH power (abs/rel)
- PCCPCH power (abs/rel)
- SCCPCH power (abs/rel)
- PSCH power (abs/rel)
- SSCH power (abs/rel)
- PICH power (abs/rel)
- Max/avg active power
- Max/avg inactive power
- Rho, EVM
- Frequency error
- Time offset, peak CDE
- Carrier feed through
- Amplifier capacity
- Peak amplifier capacity
- Average amplifier capacity
- Code/peak utilization
- Average utilization

Longitude, latitude, satellite in all screens

cdmaOne/CDMA2000 Signal Analyzer (Option 020)

Supplemental Information

Frequency range	Band 1 to Band 10	
Input signal level	-40 to +30 dBm	
RF channel power accuracy	±1.0 dB	Typical
CDMA compatibility	cdmaOne and CDMA2000	
Frequency error	±10 Hz + time base error	99% confidence level
Rho accuracy	±0.005, 0.9 <Rho<1.0	
Residual Rho	>0.995	Typical
PN offset	1 × 64 chips	
Code domain power	±0.5 dB relative power ±1.5 dB absolute power	
Pilot power accuracy	±1.0 dB	
Time offset	±1.0 μs, ±0.5μs (typical)	External trigger

Measurements		
	Option 020	Option 040
Channel power	Constellation	PN scanner
Channel power	Channel power	(Six strongest)
Spectral density	Rho	Channel power
Peak to average power	EVM	Pilot dominance
Occupied BW	Frequency error	PN offset
Occupied bandwidth	Time offset	Ec/Io, pilot power, delay
Integrated power	Carrier feed through	Channel scanner (up to 6)
Occupied power	PN offset	Frequencies or channels
Spectrum emission mask	Code domain power	Channel power, PN offset
Peak level @ defined range	Channel power	Pilot power, Ec/Io
ACPR	Pilot power (abs/rel)	Multipath profile
Reference power	Sync power (abs/rel)	Channel power
Abs power@ defined range	Page power (abs/rel)	Multipath power
Rel power@ defined range	Q-page power (abs/rel)	Ec/Io, delay
Multi-ACPR	Max/avg active power	Code domain power
Lowest reference power	Max/avg inactive power	Channel power
Highest reference power	PN offset	PN offset
Abs power@ defined range	Codogram	Pilot power (abs/rel)
Rel power@ defined range	Code utilization	Sync power (abs/rel)
Spurious emissions	Longitude, latitude	Page power (abs/rel)
Peak level @ defined range	RCSI	Q-page power (abs/rel)
	Pilot, paging, sync, Q-page	Max/avg active power
	CDP table	Max/avg inactive power
	Code, spreading factor	Frequency error
	Channel type, power	Time offset, Rho, EVM
	Code utilization	Carrier feed through
		Amplifier capacity
		Peak amplifier capacity
		Average amplifier capacity
		Code/peak utilization
		Average utilization
		Longitude, latitude, satellite in all screens

TD-SCDMA Signal Analyzer (Option 025)

Supplemental Information

Frequency range	1785 to 2220 MHz	
Input signal level	-40 to +30 dBm	
Channel power (RRC) accuracy	±1.0 dB	Typical
Modulations	QPSK, 8PSK, 16QAM	
Frequency error	±10 Hz + time base error	99% confidence level
Residual EVM (rms)	2.0 % typical	P-CCPCH slot & 1 channel
Time error (Tau)	±0.2 µs (typical)	External trigger
Spreading factor	Auto (DL, UL), 1, 2, 4, 8, 16	

Measurements

	Option 025		Option 045
Channel power	Power vs time (slot)	Code error	Sync-DL ID scanner (32)
Channel power	Slot power	Slot, DwPTS power	Scramble code
Spectral density	DwPTS power	No of active code	Ec/Io, Tau
Peak to average power	UpPTS power	Max active code power	Sync-DL ID vs Tau (up to 6)
Occupied BW	On/off slot ratio	Avg active code power	DwPTS power
Occupied bandwidth	Slot PAR	Max inactive code power	Pilot dominance
Integrated power	DwPTS code	Avg inactive code power	Power, Ec/Io, Tau
Occupied power	Power vs time (frame)	Peak CDE	Sync-DL ID multipath (up to 6)
Spectrum emission mask	Slot power (TS 0 to 6)	EVM rms/peak	DwPTS power
Peak level @ defined range	Data power left (TS 0 to 6)	Frequency error	Pilot dominance
ACLR	Midamble power (TS 0 to 6)	Time offset	Power, Ec/Io, Tau
Reference Power	Data power right (TS 0 to 6)	Auto measure	Sync-DL ID analyzer
Abs power@ defined range	Time offset	Channel power	DwPTS power
Rel power@ defined range	Power vs time (mask)	Occupied BW	Pilot dominance
Multi-ACLR	Slot power	Spectrum emission mask	EVM, Ec/Io, CINR
Lowest reference power	On/off slot ratio	ACLR	Frequency error
Highest reference power	Timogram	Multi-ACLR	Longitude, latitude, satellite in all screens
Abs power@ defined range	Constellation	Spurious emissions	
Rel power@ defined range	Rho	Slot power	
Spurious emissions	EVM rms/peak	UpPTS power	
Peak level @ defined range	PCDE	UpPTS power	
	Frequency error	On/off slot ratio	
	IQ origin offset	DwPTS code	
	Time offset	Rho	
	Midamble power	EVM rms/peak	
	Midamble power (1 to 16)	PCDE	
	Code power	Frequency error	
	Slot power, DwPTS power	IQ origin offset	
	No of active code	Time offset	
	Max active code power		
	Avg active code power		
	Max inactive code power		
	Avg inactive code power		

Mobile WiMAX Signal Analyzer (Option 026)

Supplemental Information

Frequency range	2100 to 2700 MHz 3400 to 3850 MHz 5200 to 5900 MHz	
Input signal level	-40 to +30 dBm	
Channel power accuracy	±1.0 dB typical	
Supported bandwidth	7 MHz, 8.75 MHz, 10 MHz	
Frequency error	±0.1 ppm + time base error	99% confidence level
Residual EVM (rms)	1.5% typical	

Measurements

Option 026

<p>Channel power Channel power Spectral density Peak to average power</p> <p>Occupied BW Occupied bandwidth Integrated power Occupied power</p> <p>Spectrum emission mask Peak level @ defined range</p> <p>Spurious emissions Peak level @ defined range</p>	<p>Power vs time (frame) Channel power Frame average power Preamble power DL burst power UL burst power</p> <p>Spectral flatness Subcarrier average power Subcarrier max/min/avg</p> <p>Constellation Frequency drorr EVM rms/peak RCE rms/peak Time offset Segment ID, Ccell ID Preamble index</p> <p>EVM vs carrier RCE rms/peak EVM rms/peak Segment ID, cell ID Preamble index</p> <p>EVM vs symbol RCE rms/peak EVM rms/peak Segment ID, cell ID Preamble index</p>	<p>Auto measure Channel power Occupied BW Spectrum emission mask Spurious emissions Preamble power UL burst power Interval power Frequency error Time offset RCE EVM IQ origin offset</p> <p>Power statistics CCDF</p>
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LTE Signal Analyzer (Option 028)

Supplemental Information

Frequency range	700 to 1000 MHz 1800 to 2200 MHz 2600 to 2700 MHz	
Input signal level	-40 to +30 dBm	
Channel power accuracy	±1.0 dB	Typical
Supported bandwidth	10 MHz	
Frequency error	±10 Hz + time base error	99% confidence level
Residual EVM (rms)	2.0% typical	Data EVM

Measurements

Option 028

<p>Channel power Channel power Spectral density Peak to average power</p> <p>Occupied BW Occupied bandwidth Integrated power Occupied power</p> <p>Spectrum emission mask Peak level @ defined range</p> <p>ACLR Reference power Abs power@ defined range Rel power@ defined range</p> <p>Spurious emissions Peak level @ defined range</p>	<p>Control channel PSCH EVM/power/mod type SSCH EVM/power/mod type Power PBCH EVM/power/mod type PCFICH EVM/power/mod type PHICH EVM/power/mod type PDCCH EVM/power/mod type RS EVM/power/mod type Each data channels' IQ diagram Modulation format Frequency error IQ origin offset EVM rms/peak</p> <p>Frame summary PSCH EVM/power/mod type SSCH EVM/power/mod type PBCH EVM/power/mod type PCFICH EVM/power/mod type PHICH EVM/power/mod type PDCCH EVM/power/mod type PDSCH EVM/power/mod type Frame average power RS TX power EVM rms/peak Data EVM rms/peak Frequency error IQ origin offset</p> <p>Subframe summary PSCH EVM/power/mod type SSCH EVM/power/mod type PBCH EVM/power/mod type PCFICH EVM/power/mod type PHICH EVM/power/mod type PDCCH EVM/power/mod type PDSCH EVM/power/mod type Subframe power OFDM symbol power RS EVM rms/peak Data EVM rms/peak Frequency error, time error Cell ID, group ID, sector ID</p>	<p>Power vs tme (frame) Frame average power Subframe power First slot power Second slot power Cell ID, IQ origin offset Time offset</p> <p>Data channel Resource block power IQ diagram RB power Modulation format IQ origin offset EVM rms/peak</p> <p>Auto measure Channel power Occupied BW Spectrum emission mask ACLR Spurious emissions PSCH EVM/power SSCH EVM/power PBCH EVM/power PCFICH EVM/power PHICH EVM/power PDCCH EVM/power PDSCH EVM/power Frame average power RS TX power EVM rms/peak Data EVM rms/peak Frequency error IQ origin offset</p> <p>Power statistics CCDF</p>
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General Information

Supplemental Information

Inputs and outputs		
RF in		Spectrum analyzer
Connector	Type-N, female	
Impedence	50 Ω (nominal)	
Maximum level	+30 dBm, \pm 50 VDC	
External Trigger, GPS		
Connector	SMA, female	
Impedence	50 Ω (nominal)	
External Ref		
Connector	SMA, female	
Impedence	50 Ω (nominal)	
Input frequency	10, 13, 15 MHz	
Input range	-5 to +5 dBm	
USB		
USB host	Type A, 1 port	Connect flash drive and power sensor
USB client	Type B, 1 port	Connect to PC for data transfer
LAN		Connect to PC for data transfer
E1/T1	RJ45, 10/100 Base-T	
Headphone jack	RJ48C	
External power	3.5 mm headphone Jack	
Speaker	5.5 mm barrel connector	
	Built-in speaker	
Display		
Size	8 inch, LED backlight	
Resolution	800 \times 600	
Power		
External DC Input	12 VDC to 19 VDC	
Power consumption	33 W	60 W maximum when battery charging
External AC/DC adapter Input	100 to 240 VAC, 50 to 60 Hz, 1.5 A	
Output	19 VDC, 4.74 A	
Battery		
Operating time	10.8 V, 7200 mA-h > 2.5 hours	Lithium Ion Typical
Charge time	A fully discharged battery takes about 6 hours to recharge to 80%, 8 hours to 100%	
Storage temperature	-20 to 50°C, \leq 85% RH	The battery pack should be stored in an environment with low humidity. Extended exposure to temperature above 45°C could degrade battery per- formance and life
Data storage		
Internal	Minimum 1 GB	Up to 1000 instrument states and traces
External		Supports USB 2.0 compatible memory devices
Environmental		
Operating temperature	-10 to 50°C	
Maximum Humidity	85%	
Shock and Vibration	MIL-PRF-28800F Class 2	
Storage temperature	-55 to 71° C	With the battery pack removed

Size and weight		
Weight	<4.2 kg (9.26 lb)	<4.65 kg (10.25 lb) with battery
Size	315 × 245 × 95 (mm) 12.4 × 9.6 × 3.7 (inch)	Approximately (W × H × D)
Warranty	2 years	
Calibration cycle	1 year	
EMC	EN 61326-2-1	Complies with European EMC

Ordering Information

JD7108B	
100 kHz to 7.2 GHz	Spectrum Analyzer
10 MHz to 7.2 GHz	Power Meter

Options

NOTE: Upgrade options for the JD7108B use the designation JD7108BU before the respective last two digit option number.

JD7105B010	GPS Receiver and Antenna	
JD7105B011	Interference Analyzer ^{3,4}	
JD7105B012	Channel Scanner	
JD7105B020	cdmaOne/CDMA2000 Signal Analyzer	
JD7105B021	EV-DO Signal Analyzer	(Requires option 20)
JD7105B022	GSM/GPRS/EDGE Signal Analyzer	
JD7105B023	WCDMA Signal Analyzer	
JD7105B024	HSDPA Signal Analyzer	(Requires option 23)
JD7105B025	TD-SCDMA Signal Analyzer	
JD7105B026	Mobile WiMAX Signal Analyzer	
JD7105B028	LTE Signal Analyzer	
JD7105B040	cdmaOne/CDMA2000 OTA Analyzer ⁴	(Requires options 10 and 20)
JD7105B041	EV-DO OTA Analyzer ⁴	(Requires options 10 and 21)
JD7105B042	GSM/GPRS/EDGE OTA Analyzer ⁴	(Requires options 10 and 22)
JD7105B043	WCDMA/HSDPA OTA Analyzer ⁴	(Requires options 10 and 23/24)
JD7105B045	TD-SCDMA OTA Analyzer ⁴	(Requires options 10 and 25)
JD7105B046	Mobile Wimax OTA Analyzer ⁴	(Requires options 10 and 26)

³Highly recommends adding JD7108B010

⁴Highly recommends adding G70005035x and/or G70005036x

Standard Accessories

JD71050341	Soft carrying case ⁵
G710550322	AC/DC power adapter ⁵
G710550335	Cross LAN cable (1.5 m) ⁵
GC73050515	USB A to B cable (1.8 m) ⁵
GC72450518	>1 GByte USB memory ⁵
G710550325	Rechargeable Lithium Ion battery ⁵
G710550323	Automotive cigarette lighter 12 VCD adapter ⁵
JD7108B361	JD7108B user's manual and application software—CD

⁵ Standard accessories can be purchased separately.

Optional Miscellaneous

G710050581	Attenuator 40 dB, 100 W, DC to 4 GHz (unidirectional)
JD71050342	Hard carrying case
JD71050343	Backpack carrying case
G710550324	External battery charger
JD7108B362	JD7108B user's manual – printed version

Optional Power Sensors

JD731A	Directional power sensor (peak and average power) Frequency: 300 MHz to 3.8 GHz Power: Average 0.15 to 150 W, Peak 4 to 400 W
JD733A	Directional power sensor (peak and average power) Frequency: 150 MHz to 3.5 GHz Power: Average/Peak 0.1 to 50 W
JD732A	Terminating power sensor (average power) Frequency: 20 MHz to 3.8 GHz Power: –30 to 20 dBm
JD734A	Terminating power sensor (peak power) Frequency: 20 MHz to 3.8 GHz Power: –30 to 20 dBm
JD736A	Terminating power sensor (peak and average power) Frequency: 20 MHz to 3.8 GHz Power: –30 to 20 dBm

Optional RF Cables

G710050531	1.5 m (4.92 ft) RF Cable DC to 18 GHz N(m)-N(f), 50 Ω
G710050532	3.0 m (9.84 ft) RF Cable DC to 18 GHz N(m)-N(f), 50 Ω

Optional Omni Antennas

G700050351	RF Omni Antenna 400 to 450 MHz
G700050352	RF Omni Antenna 450 to 500 MHz
G700050353	RF Omni Antenna 806 to 896 MHz
G700050354	RF Omni Antenna 870 to 960 MHz
G700050355	RF Omni Antenna 1710 to 2170 MHz

Optional Yaggi Antennas

G700050364	RF Yaggi Antenna 806 to 896 MHz
G700050365	RF Yaggi Antenna 866 to 960 MHz
G700050363	RF Yaggi Antenna 1750 to 2390 MHz

Optional Adapters

G710050571	Adapter N(m) to DIN(f), DC to 4 GHz, 50 Ω
G710050572	Adapter DIN(m) to DIN(m), DC to 4 GHz, 50 Ω
G710050573	Adapter N(m) to SMA(f), DC to 18 GHz, 50 Ω
G710050574	Adapter N(m) to BNC(f), DC to 1.5 GHz, 50 Ω
G710050575	Adapter N(f) to N(f), DC to 4 GHz, 50 Ω
G710050577	Adapter N(f) to DIN(f), DC to 4GHz, 50 Ω
G710050578	Adapter N(f) to DIN(m), DC to 4 GHz, 50 Ω
G710050579	Adapter DIN(f) to DIN(f), DC to 4 GHz, 50 Ω

Test & Measurement Regional Sales

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