LIG Nex1 Spectrum Analyzer [NS-30A] Specification

Specifications			Descriptions
Frequency	**Frequency range**	AC Coupled	**1kHz ~ 3GHz**
		Tuning Resolution	minimum 1 Hz
	Frequency reference	Temperature Drift	± 2 [ppm]/year (±0.2 [ppm] with HS option)
		Aging per year	± 1 [ppm]/year (±0.1 [ppm] with HS option
	Frequency readout	Maker resolution	minimum 1 Hz
		Accuracy	± (marker frequency * reference error + 3% span + 50% of RBW)
	Frequency counter	Resolution	1Hz/10Hz/100Hz/1kHz
		Accuracy	± ((reference frequency accuracy x marker frequency accuracy) ± (counter resolution x 1LSB))
		Sensitivity	−70dBm @ f > 50kHz
	Frequency span	Range	0 Hz, 100Hz ~ 3GHz
		Resolution	1Hz
		Accuracy	±3%
	Sweep	zero span	25㎲ to 100sec. ±10% @ < 100ms
		Span ≥ 10Hz	20ms to 1000sec. ±5% @ ≤ 100ms
		Sweep points	501
	Trigger	Span ≥ 10Hz	Free run, video, line, external
	Spectral purity (f=1GHz, 0dBm Input)	100Hz offset	-70dBc/Hz typical
		1kHz offset	-90dBc/Hz typical
		10kHz offset	-90 dBc + 20logN, -95dBc typical
		100kHz offset	−114dBc/Hz typical
		1MHz offset	−124dBc/Hz typical
	Residual FM		≤ 100Hzp−p in 200ms @1kHz, RBW, 1kHz VBW
	RBW	3dB bandwidth	300Hz to 3MHz, 1−3−10 sequence
		Bandwidth accuracy	± 10% (DRBW option)
			± 20% (Standard)
		Shape factor (60dB : 3dB)	<15, <5 (DRBW option)
		Bandwidth switching uncertainty	± 1.0dB, 3kHz RBW reference
	VBW	3dB bandwidth	1Hz to 3MHz (1,2,3,5 sequence)
Amplitude	**Display range**	Measurement Range	Displayed average noise level to + 30dBm
	Maximum input level	DC(AC Coupled)	± 50VDC
		CW RF power	+30dBm
	RF input attenuator	Range	0 − 50dB
		Step	10dB
		Switching accuracy	± 0.5dB/Steps @ all frequency
			± 1.5dB, all steps @ all frequency
	1dB CP	0dB RF attenuation	-10 [dBm] @ ~ 3GHz
	Third-order intermodulation distortion(TOI)		two –30 dBm tones at input mixer with tone separation > 100 kHz +2.5 [dBm] @ 1MHz to 100 MHz +5 [dBm] @ 100MHz to 26.5 GHz, +7 [dBm] typical
	Second harmonic intercept(SHI)		+35 [dBm] @ ~ 1.5 GHz, -30dBm input +80 [dBm] @ 1.5 GHz to 26.5 GHz, -30dBm input
	Displayed average noise level (DANL) (RBW 1kHz, VBW 10Hz, 50 Ω termination)	Pre-amplifier off	-105 [dBm] @ 50kHz to 100kHz
			-110 [dBm] @ 100kHz to 2.8GHz, -113[dBm] typical
			-105 [dBm] @ 2.8GHz to 3GHz, -108 [dBm] typical
		Pre-amplifier on	-95~-115 [dBm] @ 50kHz to 50 MHz
			-130 [dBm] @ 50MHz to 1.8 GHz
			-129 [dBm] @ 1.8GHz to 3.0GHz
	Immunity to interference	Residual response(0dB Attn.)	-85dBm
		Other Input Related Spurious	-60dBm @ -30dBm Input
	Display range	Log Scale	1, 2, 5, 10 dB / div
		Linear Scale	10 DIvisions
		Units of level axis	dBm, dBmV, dBμV, V, W (log level display)
			mV, μV, dBmV (linear level display)
	Reference level	Logarithmic range	-110 dBm to +30 dBm, 0.1 dB steps
		Accuracy	±1.0dB or 1.5dB
	Traces	Number	2 Traces
		Trace detectors	Normal, positive peak, sample, negative peak, average
		Trace functions	Clear/Write, Max Hold, Min Hold, Average
	Frequency response (10 dB input attenuation)		-3dB ~ +1dB 1kHz to 5MHz
			± 1.0dB at 5MHz to 2.9GHz
			± 1.5dB at 2.9GHz to 6.4GHz
			± 2.2dB at6.4GHz to 13.2GHz
			± 3.0dB at 13.2GHz to 26.5GHz
	Display Linearity	Log scale Switching Error	±1.0 dB over 10 divisions (5 or 10dB/div)
		Linearity	±0.5 dB over 10 divisions (1 or 2dB/div)
			3% of reference level, Linear level display
	Demodulation		AM, FM
		Audio output port	loudspeaker, phone jack

LIG Nex1 Spectrum Analyzer [NS-30A] Specification

Specifications			Descriptions
Inputs and Outputs	**RF input**	Type	N female, 50 Ω
			APC 2.92 mm, 50 Ω(26.5GHz)
		VSWR	10 dB input attenuation
			<1.5
	3rd IF output	Type	BNC female, R i = 50 Ω
		Frequency	10.7 MHz
		Bandwidth	same as resolution bandwidth
		Level	+2dBm at top of screen
	Probe power supply		+15V,-12V, GND
	Audio output	Type	phone jack
	Ext trigger input	Type	BNC female, 10 kΩ nominal
		Trigger level	5 V TTL nominal
	Sweep gate output	Type	BNC female
		Trigger level	0 ~ 5 VDC
	Reference frequency output	Type	BNC female
		Frequency	10 MHz
		Level	+5 dBm
	Reference frequency input	Type	BNC female
		Frequency	10 MHz
		Required level	–5 to +15 dBm nominal
	GPIB	Type	IEEE 488.2, 24-pin female
		Interface functions	SH1, AH1, T5, L3, SR1, RL1, PP1, DC1, DT1, C0, PP0, SR0, DC0, DT0, C1, C2, C3
	Serial interface		RS-232-C (COM), 9-pin D-SUB female
	USB		1.1
	Printer interface		parallel (Centronics-compatible)
	Monitor output(VGA)		15-pin mini D-SUB, 640 X 480
	Mouse connector		PS/2-compatible, for factory-use only
	Keyboard connector		PS/2 female for MF2 keyboard for factory-use only
	Cal. Out	Frequency	20 MHz
		Level	-20 + 1.0dBm
	Video Out	Type	BNC female
		Frequency	DC
		Level	0 ~ 5VDC
General Specifications	**Display**	Size	6.4" color TFT LCD
		Resolution	640 x 480 pixels, VGA
	Mass memory		1.44 Mbyte 3½ " disk drive, hard disk
	Environmental Conditions	Temperature	0°C to +40°C (Operating)
			–20°C to +60°C (Storage)
		Humidity	Non-condensing (85% operation, 90% storage)
			MIL-T-28800E , type 2 , CLASS 5
		Altitude	Operation up to 3000 meters
			Non-Operating up to 40000 feet
	Mechanical resistance		MIL-T-28800E , type 2 , CLASS 5
	EMC		EN55011 : 1998+A1:1999 Group 1 Class A
			EN61326 : 1997+A1:1998
	Safety		EN 61010-1
	Power supply	Steady State Voltage	100VAC to 240VAC, 50/60Hz
		Frequency	50/60Hz
		Power consumption	100 Watts Maximum (without option)
	Dimension (W x H x D)		350 x 185 x 381
	Weight		NS-30A : 9.4KG / NS-132 : 11.4KG / NS-265 : 11.8KG
	Recommended calibration interval		1-year
	Standard Warrenty		2-years