

VN6000 Specifications

Input

•Frequency

Frequency range	220MHz to 3.2GHz 4.96GHz to 6.2GHz
Resolution	0.1Hz
Setting time	<100ms (10ms typical)

•Reference Frequency

Aging rate	8x10 ⁻⁸ /yr
Temperature characteristics	5x10 ⁻⁸ /yr
Warm-up time	>30minutes

Internal reference

Frequency	10MHz
Level	>1Vp-p

External clock

Frequency	10MHz±100Hz
Level	1 to 5Vp-p
Impedance	1kΩ

•Spectral Purity (100kHz offset, typical)

220MHz to 500MHz	-130dBc/Hz
500MHz to 600MHz	-124dBc/Hz
600MHz to 800MHz	-130dBc/Hz
800MHz to 1.45GHz	-124dBc/Hz
1.45GHz to 2.75GHz	-118dBc/Hz
2.75GHz to 3.2GHz	-118dBc/Hz
4.96GHz to 6.2GHz	-110dBc/Hz

•Input

Input range	-30dBm to 0dBm
Input impedance	50Ω, N-connector
VSWR	<2
	excluding: Input range -30dBm
Maximum input level	+5dBm, 0VDC

Output

•IQ Output

Demodulation frequency response	60MHz(-3dB) (220MHz to 3.14GHz, 5.02GHz to 6.14GHz) $\sqrt{I^2+Q^2}=0.5V_{rms}$ (Full range input or AGC ON)
Demodulation input level	<3% (at 10kHz)
Amplitude error between the channels	AGC ON
Output noise level	AGC OFF
	• <3.2GHz -100dBm/Hz (typical)
	• 4.96GHz to 6.2GHz -97dBm/Hz (typical)
	AGC OFF
	• <3.2GHz -110dBm/Hz (typical)
	• 4.96GHz to 6.2GHz -107dBm/Hz (typical)
Spurious (without input)	<-40dBm (AGC OFF, DC to 60MHz)
Impedance	50Ω(nominal)

•IF Output

Frequency	150MHz
Level	-15dBm(Full range input, non-calibrated)

Impedance

50Ω(nominal)

•RSSI Output

SLOPE: The LOG conversion value of the input level is outputted

Output level	3V (Full range input) 50mV/dB
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GATE: A gate signal is outputted at the time of the burst signal input

Threshold setting bandwidth:
(Input range) to (Input range - 30dbm)

Level	TTL
Impedance	50Ω(nominal)

Interfaces

RS232 Interface	EIA RS-232
GP-IB Interface	IEEE St'd 488-1978

General Specifications

Operation temperature range	5 to 40°C
Operation humidity range	20 to 80%RH
Power supply voltage	100 to 120VAC/220 to 240VAC
Power supply frequency	48 to 63Hz
Power requirement	180VA
External dimensions	426(W)x176(H)x450(D)mm
Weight	Approximately 19kg/48lb

Sampling Clock Generation Function (Option)

Frequency

Frequency Range	1Hz to 100MHz
Resolution	1Hz
Frequency Stability	See reference frequency

Output

Level	ECL (Connect to High Impedance)
Impedance	50Ω(nominal)

Output Control

Trigger sources	Internal/External switching
Trigger levels	TTL/ZEROCROSS switching
Trigger Polarities	Rise/Fall switching

External Trigger Input

Input level	
TTL	TTL level
ZEROCROSS	0V center, >0.5Vp-p
Impedance	10kΩ(nominal)
Input limit	±6V

Model and Suffix code

Model	Suffix codes	Description
703240		VN6000 Wideband IQ Demodulator
Power Cable	-D	UL, CSA standard
	-F	VDE standard
	-S	BS standard
	-R	SAA standard
	-M	Japan standard
Options	/CLK	Sampling clock generation function