

AMARWELL TECHNOLOGIES PRIVATE LIMITED



ELECTRONIC MEASUREMENT INSTRUMENTS



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Microwave/Millimeter-Wave Measurement Instruments

Signal Generators

0564C/D/E/G/H/L/N/P Signal Generator



Frequency Range	6kHz~13GHz (0564C)	6kHz~20GHz (0564D)	6kHz~33GHz (0564E)
	6kHz~45GHz (0564G)	6kHz~53GHz (0564H)	6kHz~67GHz (0564L)
	6kHz~90GHz (0564N)	6kHz~110GHz (0564P)	
Frequency Resolution	0.001Hz		
SSB Phase Noise (Typ.)	-145dBc/Hz@10kHz offset at 1GHz Carrier -132dBc/Hz@10kHz offset at 10GHz Carrier -161dBc/Hz@30MHz offset at 20GHz Carrier		
Maximum Output Power (Typ.)	+27dBm@5GHz +22dBm@60GHz	+24dBm@20GHz +3dBm@110GHz	+25dBm@30GHz
Modulation Type	AM, FM, Phase Modulation, and Pulse Modulation		
Channel Numbers	Maximum support 2 Channels		

Signal Generators

0564C/D/E/G/H/L/N/P-V Signal Generator



Frequency Range	6kHz~13GHz (14 6C-V)	6kHz~20GHz (0564D-V)	6kHz~33GHz (0564E-V)
	6kHz~45GHz (14 6G-V)	6kHz~53GHz (0564H-V)	6kHz~67GHz (0564L-V)
	6kHz~90GHz (14 6N-V)	6kHz~110GHz (0564P-V)	
SSB Phase Noise (Typ.)	-145dBc/Hz@10kHz offset at 1GHz Carrier -132dBc/Hz@10kHz offset at 10GHz Carrier -161dBc/Hz@30MHz offset at 20GHz Carrier		
Internal Modulation Bandwidth	Maximum 2 GHz Modulation Bandwidth Supports 5G NR, Bluetooth, WLAN, Radar Scene Signal Simulation		
External Modulation Bandwidth	Maximum 5 GHz Modulation Bandwidth		
EVW (Typ.)	EVM<0.4% (QPSK@2GHz Carrier) <-55dBc@2GHz Carrier 5G NR ACPR <-45dBc@42.5GHz Carrier 5G NR ACPR		
Maximum Output Power (Typ.)	+27dBm@5GHz	+24dBm@20GHz	+25dBm@30GHz +22dBm@60GHz
Channel Numbers	Maximum support 2 Channels, Supports multi-machine cascade, can provide solutions for MIMO, Beam forming test		

Signal Generators

0472A/B/C/D/F Signal Generator



Frequency Range	9kHz~3GHz (0472A) 9kHz~20GHz (0472D)	9kHz~6GHz (0472B) 9kHz~40GHz (0472F)	9kHz~12GHz (0472C)
Frequency Resolution	0.001Hz		
SSB Phase Noise (Typ.)	-136dBc/Hz@10kHz offset at 10GHz Carrier -116dBc/Hz@10kHz offset at 10GHz Carrier		
Maximum Output Power (Typ.)	>20dBm@20GHz		
Modulation Type	AM, FM, Phase Modulation and Pulse Modulation		

Signal Generators

0472 A/B-V Signal Generator



Frequency Range	9kHz~3GHz (0472A-V)	9kHz~6GHz (0472B-V)
Frequency Resolution	0.001Hz	
SSB Phase Noise (Typ.)	-136dBc/Hz@10kHz offset at 1 GHz Carrier -120dBc/Hz@10kHz offset at 6 GHz Carrier	
Maximum Output Power (Typ.)	>22dBm@3GHz	
Arbitrary Waveform Mode	Mat-File 5, ASCII, Binary, Cap, Csv Format	
Internal Modulation Bandwidth	Maximum 200 MHz Modulation Bandwidth Supports more than 20 general-purpose digital modulation signals in PSK, QAM, FSK, MSK, etc.	

Signal/Spectrum Analyzers

0772B/D/E/F/H/L/N/P Signal/Spectrum Analyzer



Frequency Range	2Hz~8.4GHz (0772B) 2Hz~18GHz (0772D) 2Hz~26.5GHz (0772E) 2Hz~45GHz (0772F) 2Hz~50GHz (0772H) 2Hz~67GHz (0772L) 2Hz~90GHz (0772N) 2Hz~110GHz (0772P)
Signal Analysis Bandwidth	Suppoks 10MHz/40MHz/200MHz/400MHz/600MHz/1.2GHz/2GHz/4GHz signal analysis bandwidth
Resolution Bandwidth	0.1Hz to 20MHz
SSB Phase Noise (1GHz carrier) (Typ.)	-125dBc/Hz@1kHz offset at 1GHz Carrier -133dBc/Hz@10kHz offset at 1GHz Carrier -135dBc/Hz@100kHz offset at 1GHz Carrier -138dBc/Hz@1MHz offset at 1GHz Carrier
DANL (Typ.)	154dBm/Hz@1GHz Carrier-167dBm/Hz@1GHz Carrier(Pre-amplifier ON)
Abundant Function Options	5G NR Signal Analysis, Pulse Signal Analysis, Transient Signal Analysis-FMCW Signal Analysis, Vector Signal Analysis, Real-time Spectrum Analysis, Noise Figure Analysis, Phase Noise Measurement etc
Flexible Output Interfaces	Various Analog and Digital signal input and output interfaces, Built-in high-speed optic interface, can achieve up to 2GHz bandwidth try data acquisition and output

Signal/Spectrum Analyzers

2572A/B/C/D/E/F/G/H Signal/Spectrum Analyzer



Frequency Range	2Hz~4GHz (2572A) 2Hz~8GHz (2572B) 2Hz~13.6GHz (2572C) 2Hz~18GHz (2572D) 2Hz~26.5GHz (2572E) 2Hz~40GHz (2572F) 2Hz~45GHz (2572G) 2Hz~50GHz (2572H)
Resolution Bandwidth	Maximum 1.2GHz Analysis Bandwidth
SSB Phase Noise (1GHz carrier) (Typ.)	-122dBc/Hz@10 KHz offset at 1GHz Carrier -122dBc/Hz@100 KHz offset at 1GHz Carrier -135dBc/Hz@1 MHz offset at 1GHz Carrier
DANL (Typ.)	-154dBm/Hz@1GHz Carrier -165dBm/Hz@1GHz Carrier(Pre-amplifier ON)
Rea-time Signal Analysis	Suppoks maximum 400 MHz real-time signal analysis, 100% POI <0.6 us
Abundant Function Options	Comprehensive wireless communication protocol analysis, 5G NR, LTE, OFDM, NB-IOT, WCDMA GSM Signal Analysis, Phase Noise Measurement, Real-Time Spectrum Analysis Measurement, FMCW and WLAN Signal Measurement

Signal/Spectrum Analyzers

0401 Series Spectrum Analyzer



Frequency Range	9kHz~9GHz (0401B)	9kHz~20GHz (0401D)
Real-Time Analysis Bandwidth	40MHz	
Resolution Bandwidth	1Hz~20MHz	
SSB Phase Noise (1GHz Carrier)	-108 dBc/Hz@10kHz offset -110dBc/Hz@100kHz offset -108dBc/Hz@100kHz offset	
DANL	$\leq -163\text{dBm/Hz}$ (10MHz~2GHz, Pre-amplifier ON, Typical)	
Sweep Speed	<33ms (20GHz Sweep span, 3MHz Resolution bandwidth)	
Various Measurement Functions	spectrum analyzer, interference analyzer (spectrogram, RSSI), AM/FM/PM analyzer, channel scanner, high accuracy power meter, vector signal analyzer	

EMI Receiver

2504 EMI Receiver



Frequency Range	2Hz~8.4GHz (2504B)	2Hz~18GHz (2504D)	2Hz~26.5GHz (2504E)
	2Hz~45GHz (2504F)	2Hz~50GHz (2504H)	
EMI Filter (-6dB bandwidth)	Suppoks 1Hz, 10Hz, 100Hz, 200Hz, 1kHz, 9kHz, 10kHz, 100kHz, 120kHz, 1MHz, 10MHz		
Resolution Bandwidth	1 Hz to 20 MHz (in steps of 1, 2, 3, and 5)		
SSB Phase Noise (1GHz Carrier) (Typ.)	-125dBc/Hz@1kHz offset at 1GHz Carrier -133dBc/Hz@10kHz offset at 1GHz Carrier -135dBc/Hz@100kHz offset at 1GHz Carrier		
DANL (Typ.)	$-153\text{dBm/Hz@1GHz Carrier}$ - $160\text{dBm/Hz@1GHz Carrier}$ (Pre-amplifier ON)		
Fast FFT Time-domain Test	FFT, Parallel Filtering and Detection up to 32768 points, Overlap rate of over 93.75% for FFT processing, with amplitude error of less than 0.4dB		
EMC Standard Compliance Test	Typical EMI test CISPR-compliant FFT time-domain test and detector, EMC standards such as GB/T 6113, GJB151 and CISPR		

Network Analyzers

0208B/C/D/E/F/G/H/K/L/N/P Vector Network Analyzer



Frequency Range	10MHz~9GHz (0208B) 10MHz~32GHz (0208F) 10MHz~67GHz (0208L) Minimum frequency up to 500Hz	10MHz~14GHz (0208C) 10MHz~44GHz (0208G) 10MHz~90GHz (0208N)	10MHz~20GHz (0208D) 10MHz~50GHz (0208H) 10MHz~110GHz (0208P)	10MHz~26.5GHz (0208E) 10MHz~53GHz (0208K)
Frequency Resolution	0.1Hz			
Dynamic Range (Typ.)	102dB (10~50MHz) 142dB (2~4GHz) 137dB (26.5~30GHz) 118dB (50~60GHz)	124dB (50~500MHz) 142dB (4~10GHz) 134dB (30~32GHz) 116dB (60~64GHz)	137dB (0.5~1GHz) 139dB (10~16GHz) 135dB (32~40GHz) 114dB (64~67GHz)	141dB (1~2GHz) 138dB (16~26.5GHz) 128dB (40~50GHz)
IF Bandwidth	1Hz to 30MHz			
Interface Type	LAN, GPIB, USB			
Various Functions	Time-domain, True-Differential, Mixer/Convexer Test, Gain Compression, Spectrum Analysis, Noise Figure Analysis and Pulse Measurement			

Network Analyzers

0210C/D/E/G/L Vector Network Analyzer



Frequency Range	100kHz ~ 14GHz (0210C) 10MHz ~ 43.5GHz (0210G)	100kHz ~ 20GHz (0210D) 10MHz ~ 67GHz (0210L)	100kHz ~ 26.5GHz (0210E)
Frequency Resolution	0.1Hz		
Sweep Speed	43ms@600kHz IF Bandwidth, 201 Points at Full frequency band		
Power Sweep Range	≥60dB		
Dynamic Range (Typ.)	90dB (10MHz~50MHz) 115dB (250MHz~1GHz) 122dB (10GHz~20GHz) 110dB (35GHz~43.5GHz)	98dB (50MHz~250MHz) 128dB (1GHz~10GHz) 118dB (20GHz~35GHz)	
Various Functions	Time-domain analysis, TDR analysis, AFR function, and High-speed cable test software		

Network Analyzers

0211 Series Vector Network Analyzer



Frequency Range	9kHz/100kHz to 4.5GHz/9GHz (0211A/B/AM/BM)	300kHz to 14GHz/20GHz/26.5GHz (0211C/D/E/CM/DM/EM/CU/DU/EU)
Dynamic Range	98dB (9kHz~100kHz) 110dB (100kHz~10MHz) 140dB (10MHz~6GHz) 136dB (6GHz~9GHz)	95dB (300kHz~18MHz) 140dB (18MHz~6GHz) 130dB (6GHz~9GHz) 120dB (9GHz~14GHz) 110dB (14GHz~20GHz) 100dB (20GHz~26.5GHz)
IF Bandwidth	1Hz to 5MHz	
Maximum Output Power	0dBm (9kHz~100kHz) 10dBm (100kHz~9GHz)	10dBm (300kHz~14GHz) 0dBm (14GHz~26.5GHz)
Interface Type	LAN, GPIB, USB	

Handheld Measurement Instruments

Handheld Spectrum Analyzer

1123 Handheld Signal Generator



Frequency Range	1MHz~20GHz (1123D) 1MHz~26.5GHz (1123E) 1MHz~40GHz (1123F) 1MHz~50GHz (1123H)
Frequency Resolution	0.1Hz
SSB Phase Noise	-110dBc/Hz @ 10kHz offset at 10GHz Carrier
Output Power Range	-120dBm to +10dBm (2.5GHz to 10GHz)
Modulation Type	Analog modulation, Pulse modulation

Handheld Spectrum Analyzer

1125 Series Handheld Spectrum Analyzer



Frequency Range	9kHz~6GHz/9GHz//20GHz/26.5GHz/44GHz/54GHz
DANL	-165dBm/Hz (Typ.)
SSB Phase Noise	-113dBc/Hz@100kHz frequency offset@1GHz carrier -108dBc/Hz@100kHz frequency offset@10GHz carrier
Sweep Time	<33ms (20GHz sweep span, 3MHz Resolution bandwidth)
Resolution Bandwidth	1Hz~20MHz
Real-time Signal Analysis	120MHz real-time analysis bandwidth, supports 5G NR, LTE, GSM signal analysis, supports WIFI wireless communication
Various Measurement Functions	spectrum analyzer, interference analyzer (spectrogram, RSSI), AM/FM/PM analyzer, channel scanner, high accuracy power meter, vector signal analyzer

Handheld Spectrum Analyzer

2201A/B/C/D/E/F/G/H/L Spectrum Analyzer



Frequency Range	9kHz~4GHz/6.5GHz/9GHz//20GHz/26.5GHz/32GHz/44GHz/50GHz/67GHz
DANL	-163dBm/Hz RBW (Typ.)
SSB Phase Noise	-112dBc/Hz@100kHz frequency offset@1GHz carrier (2201A/B/C) -106dBc/Hz@100kHz frequency offset@1GHz carrier (2201D/E/F/G/H/L)
Sweep Speed Resolution Bandwidth	<20ms (shokest sweep time at 1GHz span)
Full-band Pre-amplifier	1Hz~10MHz
Various Measurement Functions	spectrum analyzer, interference analyzer (spectrogram, RSSI), AM/FM/PM analyzer, channel scanner, high accuracy power meter, signal analyzer etc.

Microwave Analyzers

2203B/D/E/G/H/K Microwave Analyzer

VNA and SA Mode



Frequency Range	9kHz/300kHz~9GHz (2203B) 9kHz/300kHz~44GHz (2203G)	9kHz/300kHz~18GHz (2203D) 9kHz/300kHz~50GHz (2203H)	9kHz/300kHz~26.5GHz (2203E) 9kHz/300kHz~54GHz (2203K)
Frequency Resolution	1Hz~20MHz		
SSB Phase Noise (1GHz carrier)	≤-110dBc/Hz@100kHz	≤-129dBc/Hz@10MHz	
Various Functions	Cable and Antenna Test, Vector Network Analyzer, Spectrum Analyzer, Power Monitoring, Vector Voltmeter, USB Power Measurement, etc.		
Storage Device	internal memory, USB or SD		
Interface Type	LAN, USB, Type C		
Weight	<3.9 kg		
Test data can be saved and recalled			
Battery-powered, suitable for field application			
Intelligent Power Management remaining charge indication, low battery alarm			

Opto-Electronic Measurement Instruments

Optical Spectrum Analyzer

3301 Series

Optical Spectrum Analyzer

Frequency Range	350~1200nm(3301C) 600~1700nm(3301D) 1200~2400nm(3301E) 1000~2500nm(3301EA)
Frequency Resolution	0.2~1100nm (full range span)
SSB Phase Noise	up to $\pm 0.01\text{nm}$ (see detailed specification of each model)
Wavelength Resolution Setting	0.02, 0.05, 0.1, 0.2, 0.5, 1, 2, 5, 10nm
Minimum Sampling Resolution	0.001nm
Maximum Input Power	+20dBm (per channel, full wavelength range)
Power Linearity	up to $\pm 0.05\text{dB}$

0405 SERIES DIGITAL OSCILLOSCOPE

0405E/F/G/K

DIGITAL OSCILLOSCOPE



Frequency Range	1GHz (0405E), 2GHz (0405F), 3GHz (0405G), 4GHz (0405K) Channels 4, 8 (optional)
Sampling rate	10GSa/s~20GSa/s
Vertical Resolution	8bit vertical resolution
Depth storage	Up to 2Gpts
Waveform capture rate	1,200,000 waveforms/sec
FFT refresh rate	400,000 times/sec

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