

Multi-Band PIM Analyzers

The Multi-Band Passive Intermodulation analyzer enables the network operator to perform multi cellular band testing in one instrument. The PIM analyzer supports all general testing scenarios and especially fit for testing of cable PIM accessories in telecommunication area. The Multi-Band PIM Analyzers applied to RF researching or factory final inspection are configured up to six mobile communication bands into a 19" wide set. Having advantages of solid, economic, fast test, convenient, easy to handle with, these are used for measuring PIM on broadband passive components (such as base station antenna, RF connector, cavity filter, arrester, jump cable, low PIM termination, etc). Multi-band analyzers have a significant function: these can be configured with network analyzers to a new system which can measure the PIM of broadband products and measure "S parameter" fast and accurately at the same time. There're two basic types of multi-band analyzers. One is "Not Combined" type, the other one is "Combined" type.

For "Not Combined" type, each band has an independent test port. As a result, this type can measure broadband multi-band products only by different ports.

For "Combined" type, all the frequency bands signal are combined to a common port, which can make measurement for broadband products easier and faster. The measurement program can be crafted based on user's manual of products by customers on their own. The average efficiency of measurement is 5 times than "Not Combined" type. (to measure a three bands product only needs 12 second around).



Not Combined

Combined

Product Features

- Fully configurable frequencies, power and IM products
- Calibrated for output power and input PIM levels
- Simple to operate ,user-friendly ,bilingual (English/Chinese)
- Three methods of measurement :frequency sweep, dot frequency and time domain
- All bands of China Mobile are covered in PIM testing
- Analyzed result can be exported in reporting format of Microsoft Word/Excel/PDF,
- Data generated can be exported to ACCESS format.
- Test frequency band automatic switchover with "one click"
- Users can craft test programs base on product handbook on their own

Technical Specifications

System

Measurement Method	Reverse (Reflected) PIM
Measurement Type	Combined/Not combined
Not Combined Frequency Band Reisdual PIM(800M)	≤-122dBm(-165dBc)@2×+43dBm
Combined Frequency Band Reisdual PIM(900-2600)	≤-120dBm(-165dBc)@2×+43dBm
Testing Ports	2×RF output (7/16 DIN female)
Display	19"LCD
User's Ports	4×USB,1×LAN
Intermodulation order	IM2 / IM3 / IM5 / IM7 / IM9

Trasmitter

Frequency Increment	500kHz/1MHz/2MHz//5MHz/10MHz
Frequency Accuracy	±3ppm
Power per tone (adjustable)	2×1 to 25W (+30 to +44dBm in 1dB increments)
Power Stepping	0.5dB
Power Stablity	±0.5dB
Reserve Power Protection	100W

Receiver

Measurement Noise Floor	≤-135dBm
Measurement Range	-55dBm to -135dBm
Receiver Accuracy	±0.5@-100dBm

Electrical

Mains Power	AC 175-250V,50Hz
AC Power	≤500W
Warm-up Time	3 Minutes

Mechanical

Dimensions/Weight	Case1: 5U 470×500×220mm (L×W×H)/approx	30kg
	Case2: 7U 470×500×310mm (L×W×H)/approx	30kg

Environmental

Operating Temperature Range	-5 °C to +35 °C
Relative Humidity	5% to 90% RH no-condensing
Cooling	Forced Air

Models

	System	TX Frequency	RX Frequency
PIM700S	LTE	745-793MHz	697-720MHz
PIM800S	CDMA/NADC/AMPS	869-894MHz	824-849MHz
PIMPIM900S	GSM	935-960MHz	890-915MHz
PIM1800S	DCS 1800	1805-1880MHz	1710-1785MHz
PIM1900S	PCS 1900/LTE	1930-1990MHz	1850-1910MHz
PIM2100S	WCDMA/CDMA 2000	2110-2170MHz	1920-2060MHz

PIM2400S	WLAN	2400-2483.5MHz	2305-2336.5MHz
PIM2600S	WiMAX/UMTS2	2620-2695MHz	2545-2580MHz
PIM3500S	WiMAX/Wireless IP	3510-3594MHz	3410-3484MHz

* Customized