



## Product Description

Portable PIA(Passive intermodulation analyzer) provides an easy way to precisely determine the intermodulation characteristics of

- Antenna
- Transmission Line
- Connector
- Jumper
- Filter and Combiner
- Splitter
- Tower Mounted Device
- Other Passive Components

which operates in AMPS, EGSM, DCS, PCS, UMTS and WiMAX frequency range (according to customers' requirements) .

This Portable PIA is specially designed for the outdoor measurement of reversed 3<sup>rd</sup>, 5<sup>th</sup>, 7<sup>th</sup> and 9<sup>th</sup> order intermodulation products. The analyzer set up complies with the test methods suggested by proposal paper IEC 62037(IEC SC 46D.WG6).

**IM Analyzer Performance**

**General**

Detected Signal:	Refl. 3 <sup>rd</sup> , 5 <sup>th</sup> , 7 <sup>th</sup> and 9 <sup>th</sup> order intermodulation product
Test Signals:	
- Frequency:	AMPS, EGSM, DCS, PCS, TD-SCDMA, UMTS, UMTS2 and WiMAX
- Power at test port:	2 x up to min. +37 ... +46 dBm
- Output power accuracy:	±0.35dB
- Display:	Display the real-time measurement results on the screen
- Storage:	Store measurement results in the equipment
- Compact structure:	450mm×400mm×200mm
- Weight:	about 20kg
- IM-level (2x 43dBm, S/N = 10 dB) :	< -168 dBc (standard)

**IM-FI-800 Filter Unit**

TX frequency range:	869 ... 894 MHz
RX frequency range:	824 ... 849 MHz
ANT interface (DUT):	7/16 female
IM-level (2 X 43dBm, S/N=10 dB)	< -168 dBc (standard)

**IM-FI-900 Filter Unit**

TX frequency range:	925 ... 960 MHz
RX frequency range:	880 ... 915 MHz
ANT interface (DUT):	7/16 female
IM-level (2 X 43dBm, S/N=10 dB)	< -168 dBc (standard)

**IM-FI-1800 Filter Unit**

TX frequency range:	1805 ... 1880 MHz
RX frequency range:	1710 ... 1785 MHz
ANT interface (DUT):	7/16 female
IM-level (2 X 43dBm, S/N=10 dB)	< -168 dBc (standard)

**IM-FI-1900 Filter Unit**

TX frequency range:	1930 ... 1990 MHz
RX frequency range:	1850 ... 1910 MHz
ANT interface (DUT):	7/16 female
IM-level (2 X 43dBm, S/N=10 dB)	< -168 dBc (standard)

**IM-FI-TD-SCDMA Filter Unit**

TX frequency range:	2020 and 2025 MHz
RX frequency range:	2015 MHz
ANT interface (DUT):	7/16 female
IM-level (2 X 43dBm, S/N=10 dB)	< -168 dBc (standard)

**IM-FI-2100 Filter Unit**

TX frequency range:	2110 ... 2170 MHz
RX frequency range:	1920 ... 2060 MHz
ANT interface (DUT):	7/16 female
IM-level (2 X 43dBm, S/N=10 dB)	< -168 dBc (standard)

**IM-FI-2600 Filter Unit**

TX frequency range:	2620 ... 2695 MHz
RX frequency range:	2545 ... 2580 MHz
ANT interface (DUT):	7/16 female
IM-level (2 X 43dBm, S/N=10 dB)	< -168 dBc (standard)

**IM-FI-WiMax Filter Unit**

TX frequency range:	3510 ... 3594 MHz
RX frequency range:	3410 ... 3484 MHz
ANT interface (DUT):	7/16 female
IM-level (2 X 43dBm, S/N=10 dB)	< -168 dBc (standard)

**IM-SOFT System Software**

Operational Modes	- Standard mode
	- Advanced mode(R&D mode/ Engineering mode)
Measurement Modes	- Two Tone measurement mode
	- Sweep measurement mode
Remote Control	- GPIB
	- USB
	- LAN (TCP/IP)
Printer	
Recommended type	printer with USB port

PORTABLE PASSIVE  
INTERMODULATION ANALYZER**IM-P08/P09/P18/P19/P21/P20/  
P26/WiMax****Temperature Range**

Max. allowable operating temperature range +5 ... +45°C  
 Recommended operating temperature range +15 ... +25°C

**Power Supply**

100 ... 240 VAC, 50/60 Hz, 1100VA

**Warm-up Time**

Minimum 15 minutes for specified accuracy

**Part-number designation****IM-P08/P09/P18/P19/P20/P21/P26/WiMax**

- IM: Intermodulation
- 08: AMPS (CDMA 800)
- 09: EGSM, GSM 900
- 18: DCS (GSM 1800)
- 19: PCS (GSM 1900)
- 20: TD-SCDMA
- 21: UMTS (WCDMA)
- 26: UMTS2 / BRS-EBS (WiMax)
- WiMax: WiMax (3400/3600 MHz)
- P: Portable type

**Accessories**

7/16 male to 7/16 female adapter	Part Number: 60 S 101-K50 N1
7/16 Male to 7/16 male adapter	Part Number: 60 S 101-S50 N1
7/16 female to 7/16 female adapter	Part Number: 60 K 101-K50 N1
7/16 male to N female adapter	Part Number: 60 S 153-K50 N1
7/16 female to N male adapter	Part Number: 53 S 160-K50 N1
-110dBm standard adapter for AMPS	Part Number: 60S110-k008
-110dBm standard adapter for EGSM	Part Number: 60S110-k009
-110dBm standard adapter for DCS	Part Number: 60S110-k018
-110dBm standard adapter for PCS	Part Number: 60S110-k019
-110dBm standard adapter for UMTS	Part Number: 60S110-k021
Test Cable 7/16 male/ 7/16 male 1.5m	Part Number: L73-C014-1500
Test Cable 7/16 male/ 7N male 1.5m	Part Number: L73-C007-1500
Test Cable N male/ N male 1.5m	Part Number: L73-C011-1500
32# torque wrench	Part Number: 60W000-000
18# torque wrench	Part Number: 53W008-000

**Order information**

	Part Number	Description
<b>Mainframe</b>	IM-P08	AMPS800 Reversed Analyzer
	IM-P09	EGSM900 Reversed Analyzer
	IM-P18	DCS1800 Reversed Analyzer
	IM-P19	PCS1900 Reversed Analyzer
	IM-P20	TD-SCDMA Reversed Analyzer
	IM-P21	UMTS2100 Reversed Analyzer
	IM-P26	UMTS2/BRS-EBS Reversed Analyzer
	IM-WiMax	WiMax ( 3400/3600 MHz )
	60Z150-001	Low PIM termination
<b>Accessories</b>	60S101-K50N1	7/16 Male to 7/16 Female adapter
	60S101-S50N1	7/16 Male to 7/16 Male adapter
	60K101-K50N1	7/16 Female to 7/16 Female adapter
	60S153-K50N1	7/16 Male to N Female adapter
	53S160-K50N1	7/16 Female to N Male adapter
	60S110-k008	-110dBm standard adapter for AMPS
	60S110-k009	-110dBm standard adapter for EGSM
	60S110-k018	-110dBm standard adapter for DCS
	60S110-k019	-110dBm standard adapter for PCS
	60S110-k021	-110dBm standard adapter for UMTS
	L73-C014-1500	Test Cable 7/16 male/ 7/16 male 1.5m
	L73-C007-1500	Test Cable 7/16 male/ N male 1.5m
	L73-C011-1500	Test Cable N male/ N male 1.5m
	60W000-000	32# torque wrench
	53W008-000	18# torque wrench

Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
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