FRANKONIA
EMC Test-Systems GmbH

Datasheet
CIT-1000

Description

The CIT-1000 is a further development of the for years available and proven „CIT-10“, with the extended frequency range up to 1200MHz, stand-alone-operation via integrated Touch-Screen-PC as well as integrated directional coupler and power-meter for forward and reverse power measurement.

As usual with our CIT-series, all integrated instruments, like Signal-generator, RF-Power-Amplifier and the 3-channel-RF Power Meter can be used as „stand-alone-unit“, too.

Hence, the Signal-generator and the RF-power-meter can also be used for radiated immunity tests acc. IEC/EN 61000-4-3. Furthermore an additional external RF-Power-amplifier could be connected to the CIT-1000 for this purpose.

Special Features:

- Conducted RF immunity tests acc. to IEC/EN 61000-4-6, BCI-tests acc. to ISO 11452-4 and MIL-STD 461
- Signalgenerator, RF-Power-Amplifier, 3-channel power-meter and directional coupler combined in one 19“-case.
- Stand-alone operation via integrated touch-screen-PC
- Frequency-range 4 kHz-1200 MHz
- With integrated amplifier 25W / 75W / 180W
- Control-Software included
- Temperature-mesuring-input for control and display of the BCI-clamp temperature
- Interfaces: USB, LAN, GPIB

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Technical specifications	
RF-Generator	
Two switchable outputs (only one can be used simultaneously)	2 x SMA
Frequency range	9 kHz to 1.2 GHz (usable from 4 kHz)
Frequency resolution	1 Hz
Output level range	0 to -63 dBm
Output level resolution	0.1 dB
Harmonics	< 30 dBc
Spurious	< 45 dBc
Amplitude modulation (internal)	0 to 100%, resolution 1%
Amplitude modulation (external)	0 to 100% , max. Amplitude 1V = 100%, BNC jack
Pulse modulation (internal)	5 to 95%, resolution 1%
Pulse modulation (external)	DC...1MHz, 3,3/5V CMOS/TTL, BNC jack
LF-Generator (modulation)	
Connector	BNC jack
Frequency range	1 Hz to 100 kHz
Frequency resolution	0.1 Hz
Signal	Sine wave / square wave / triangular
Amplitude	0...1 V
RF-Voltmeter 1 (test level)	
Connector	BNC jack
Frequency range	9 kHz to 1.2 GHz (usable from 4 kHz)
Measuring range	-40 to +30 dBm
RF-voltmeter 2+3 (forward and reverse power)	
Connector	2 x SMA
Frequency range	9 kHz to 1.2 GHz (usable from 4 kHz)
Measuring range	-40 to + 33 dBm + directional coupler typ. 40 dB
EUT-Monitor input	
input voltage	0 to 10 V DC
resolution	2.5 mV
Input impedance	100 kΩ
EUT-failed input	
Input signal	3,3/5V CMOS/TTL level
Detection mode	status or edge controlled
Temperature measurement	10 to 100 °C (1039 to 1385 Ω) resolution < 1 °C (PT 1000)
SCPI interfaces	
USB 2.0	USB-B
LAN, 100 Mbit	RJ45
GPIB (optional)	Centronics
Digital I/Os	
Out	4 Bit Digital out, 5 V CMOS/TTL
In	4 Bit Digital in, 5 V CMOS/TTL
Interlock	
Closes at	R < 1 kΩ

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RF-Power Amplifier (TYPE)	**25 W**	**75 W Namur**	**75 W**	**180 W**
Frequency range	100kHz-250MHz	10kHz-250MHz	100kHz-400MHz	1MHz-400MHz
Output Power :				
Nominal	25W	75W	75W	180W
Linear @ 1dB compression	20W	50W	50W	100W
Gain	46dB nominal	51dB nominal	51dB nominal	56dB nominal
Flatnesss	±1.5 dB maximum			
Input power for rated output	1 mW / 0 dBm			
Input / output impedance	50 Ω			
Input VSWR	1.5:1 max			
Harmonic disortion	<-20 dBc @ 20W	<-20 dBc @ 50W	<-20dBc @ 50W	<-20 dBc @ 100W
Noise figure	typ. 5 dB	typ. 7 dB	typ. 7 dB	tbd
Spurious output	<-75 dBc @ 10 W			