WSDU-1X16P

16 Channel HTOL RF Testing System, 2.5 W, 20 MHz…3000 MHz

Features

- wideband
- compact 19”, 15 U design
- amplitude balance ±1 dB typ.

Applications

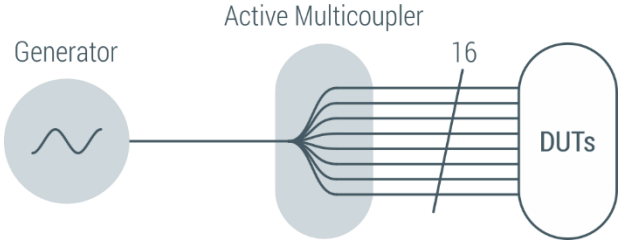
- qualification of e.g. active and passive cellular and wireless front-end components
- quality assurance (new designs, batch verification)
- research and development (R&D)

At a glance

High-temperature Operating Life Time (HTOL) testing is an intense stress test performed to simulate aging and accelerate thermally activated failure mechanisms.

During HTOL testing a large set of devices under test (DUT) is put under extreme temperature and absolute maximum rating conditions. Typically it is performed at 125°C. Details are described in JEDEC standard JESD22-A108.

Principle Circuit



Introduction

Power stress tests and HTOL tests requires RF systems which offer multichannel high output power with high level precision. WSDU-1X16P is a compact HTOL RF-testing system, suitable for the frequency range 20 MHz…3000 MHz in 50 ohms technology. It offers 16 RF channels with up to 5 watts output power per channel, translating to 2.5 W at the input of the DUT. All channels can be supplied via a single low power RF input.

Easy maintenance

The WSDU-1X16P features a very modular design for easy maintenance. Every module can be replaced by unfastening the screws on the front panel and removing the RF cables on the rear side of the module. Voltage supply and data bus connections do not require any manual wiring when modules are swapped.

RF Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
impedance	Z_{IN}/Z_{OUT}		50		Ohms	
number of outputs	n_{DUT}		16			SMA connectors male
low frequency	f_{min}			20	MHz	
high frequency	f_{max}	2800	3000		MHz	
output power balance	ΔP_{out}		± 1	± 2	dB	output to output
harmonics	d		- 30		dBc	
output isolation	S_{23}		- 80		dB	adjacent channels
max. output power	P_{OUT}	+ 33	+ 34		dBm	f ≤ 2200 MHz
	P_{OUT}	+ 30	+ 31		dBm	f > 2200 MHz
output isolation	S_{23}		- 80		dB	adjacent channels

Common Specifications

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
supply voltage	u_{AC}		230		V	AC 50 Hz
power consumption	P		240		W	@ P_{out} = 16 x 1.6 W, 2 GHz
power cable length	l	1.5			m	
power plug		type „F“ CEE7/4				
dimensions	W x H x D	approx. 610 x 840 x 640			mm	19”, 15 U
cable feedthrough	h		42		cm	from floor
output cable length	l_{OUT}	1			m	RF cable length from rack to DUT
cable length RF input	l_{GEN}		0.5		m	RF cable length to RF generator
weight	m		120		kg	
warm up time	T_w		1		h	
operating temp. range	T_o	+ 20		+ 30	°C	
storage temperature	T_s	- 40		+ 70	°C	
EMC			EN61326-1:2013			according directions: 2014/30/EU
safety			EN61010-1:2010			according directions: 2014/35/EU

Ordering Information

WSDU-1X16P	P/N:	1202.6402.1	Cable feed-trough on the right side
WSDU-1X16P	P/N:	1202.6402.2	Cable feed-trough on the left side

Related Products

Product	Description	P/N
TSQA-1X80PM	80 Channel Precise Automatic HTOL RF Testing System, 2.5 W, 20 MHz…3000 MHz	1606.1012
TSQA-1X16PM	16 Channel Precise Automatic HTOL RF Testing System, 2.5 W, 20 MHz…3000 MHz	1606.1002
TSQA-16CH10	16 Channel High-Precision Automatic HTOL RF Testing System, 10 W, 600 MHz … 2200 MHz	1507.1012
WSDU-1X80P	80 Channel HTOL RF Testing System, 2.5 W, 20 MHz…3000 MHz	1202.6102
WSDU-1X232	232 Channel HTOL RF Testing System, 125 mW, 350…2500 MHz	1004.1002