myreka

Myreka Technologies

ER6000 RF Device Tester

Data Sheet

General Description

The ER6000 is a cost effective common RF parameters tester designed for high-volume manufacturing testing of RF devices and modules. Its modular design allows user to configure a system that just meet the exact test requirements. To increase test coverage or throughput, subsystems could be added conveniently.

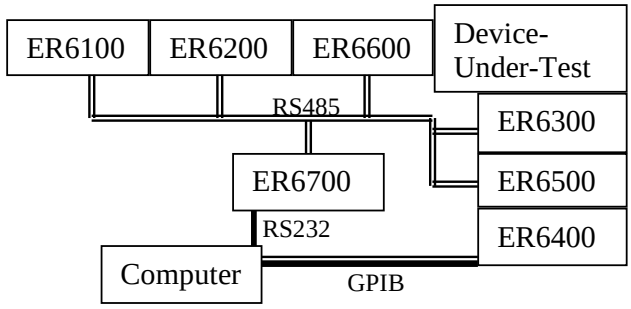
The ER6000 is suitable for testing RF passive devices such as **Switch/Relay, Attenuator, Splitter/Combiner, Coaxial Cable Assembly,** RF active devices/modules such as **RF Amplifier** and other RF devices/modules whose test parameters among others are **attenuation, gain, reflection/return loss, isolation and harmonic.**

The test software of ER6000 in conjunction with ER6000 subsystems form a RF Parametric Tester that could either be used as a standalone system or with a test handler.

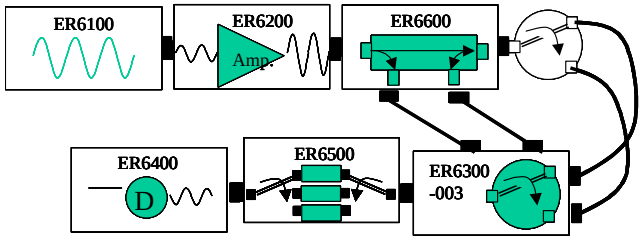
The ER6000 series subsystems are as listed below. They could be used independently (RS232) or integrated to form a test system (RS485). Among the standard features are built-in Electronic ID, calibration data i.e. losses, configuration information, switch cycle counter, component's specifications i.e. maximum power rating and operational frequency etc.:

1. **ER6000 RF Tester Software** provides both front-panel like operation and automated operation with auto-handler.
2. **ER6100 RF CW Signal Source** with frequency ranges from 1900 to 8600 MHz
3. **ER6200 RF Power Amplifier** with output power level of 30 to 40 dBm
4. **ER6300 RF Switch** for SPDT, SP4T and SP6T configuration
5. **ER6400 Power Level Detector** for measuring power level.
6. **ER6500 Harmonic Testset** for measuring harmonic level using RF sensor or ER6400
7. **ER6600 Reflection Testset** for measuring RF reflection using RF sensor or ER6400
8. **ER6700 Communication Module** for bridging the link between a computer(via its RS232 port) and an integrated ER6000 system.

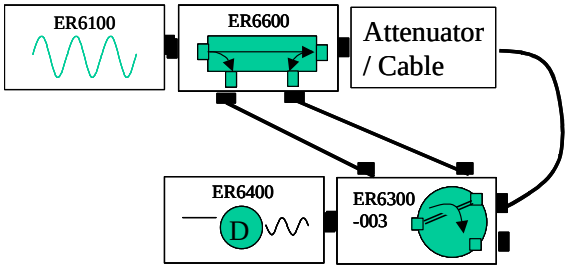
A Typical Integrated ER6000 System Configuration



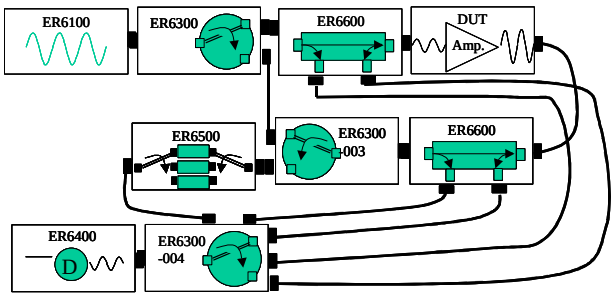
RF Switch Test Configuration(Typical)



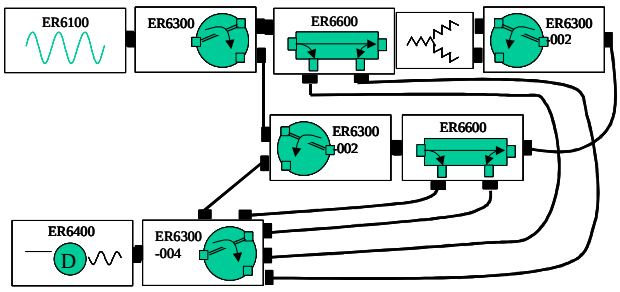
Attenuator/Cable Test Configuration(Typical)



RF Amplifier Test Configuration(Typical)



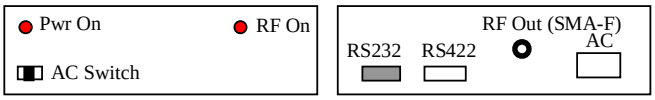
Splitter/Combiner Test Configuration(Typical)



Ordering Guide

ER6100 RF CW Signal Source

This subsystem is a continuous wave signal generator with maximum output power of 9 dBm and adjustable range of 35 dB.
It's controllable via RS232 and RS422



Front Panel Rear Panel

Dimensions : Height(2U) x Width(8") x Depth(10"

Frequency Options
Opt.001 : 1900 to 2600 MHz; Harmonic= -10 dBc
Opt.002 : 2700 to 3400 MHz; Harmonic= -12 dBc
Opt.003 : 3500 to 4500 MHz; Harmonic= -10 dBc
Opt.004 : 4300 to 5100 MHz; Harmonic= -22 dBc
Opt.005 : 5000 to 6500 MHz; Harmonic= -25 dBc
Opt.006 : 6500 to 8600 MHz; Harmonic= -30 dBc

Performance Option
Opt.101: Improve harmonic suppression to -60dBc

ER6200 RF Power Amplifier

If more than 10 dBm of power output is needed from ER6100 RF source, this amplifier is the solution.

Front Panel Rear Panel

Frequency Options
Opt.001 : 2.0 to 3.0 GHz; 30 dB Gain & 1 W
Opt.002 : 4.0 to 6.0 GHz; 24 dB Gain & 1 W
Opt.003 : 5.0 to 6.4 GHz; 50 dB Gain & 1 W

Opt.100 : 2.0 to 4.0 GHz; 12 dB Gain & 15 W
Opt.101 : 2.4 to 2.5 GHz; 48 dB Gain & 50W
Opt.102 : 5.9 to 6.4 GHz; 47 dB Gain & 35W

Performance Option
Opt.101: Improve harmonic suppression to -60dBc

ER6300 RF Switch

It's controllable via RS232 and RS422

ER6300-003

Front Panel Rear Panel

Options

Opt.	Freq. (GHz)	Power (W)	Life (min)	
001	18	10	1 mil	SPDT, Unterminated
002	20	1	5 mil	SPDT, Terminated
003	20	1	5 mil	SP4T, Terminated
004	20	1	5 mil	SP6T, Terminated

ER6400 Power Level Detector

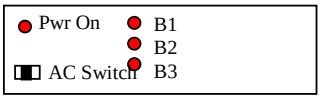
This comes with a Single Channel Power Meter, Agilent's E4418B and a Power Sensor depending on the following option.
It is controllable via GPIB.

Sensor Option

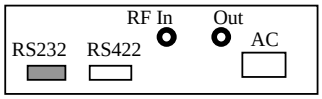
Option	Freq. (GHz)	Power (dBm)	Feature
001	0.01 to 18	-70 to +20	CW Power
002	0.01 to 18	-60 to +20	Average Power

ER6500 Harmonic Testset

This testset is capable of measuring harmonic down to –60 dBc. As it is configured based on the frequency bands needed, customer need to **specify the bands needed**.
It's controllable via RS232 and RS422.



Front Panel

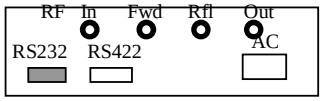


Rear Panel

ER6600 Reflection Testset

This testset is made up of dual directional coupler.
It's controllable via RS232 and RS422.

Front Panel



Rear Panel

Options

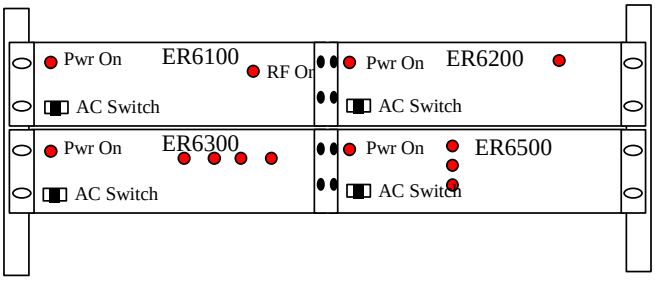
Option	Freq. (GHz)	Coupling (dB)	Power (W)	Directivity (dB)
001	2.0 to 4.0	10	10	22
002	4.0 to 8.0	10	10	18

ES6000 Software

This software comes with a test manager, subsystem configuration and calibration utilities. There are readily available library routines for common parameters such as attenuation, gain, reflection/return loss, isolation and harmonic.

Notes:

1. All subsystems are rack mountable to a standard 19" rack as depicted below.



2. All subsystems come with standard documented DLL drivers.

MYREKA TECHNOLOGIES (M) Sdn Bhd, 10, Persiaran Mahsuri 1 / 2, Sunway Tunas, 11900 Penang, Malaysia.
Tel: +604-645 5806 Fax: +604-645 5807 Email : sales@myrekatech.com Website : www.myrekatech.com