ANRITSU

MT8820A

The Anritsu MT8820A is a multi-system Radio Communication Analyzer designed to perform high-speed transmitter and receiver testing of 3G W-CDMA (including HSDPA), GSM/GPRS/EDGE, and 1xEV-DO mobile terminals. Operating over a frequency range of 30 MHz to 2.7 GHz, it supports call processing, batch measurements, and dual-phone parallel testing.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488)
Display	8.4" Color TFT LCD (640 x 480 dots)

Physical

Power Supply	100 V (ac) to 240 V (ac), 50 Hz to 60 Hz, ≤ 300 VA (without options), ≤ 450 VA (with options)
Operating Temperature	+5 °C to +45 °C °C
Dimensions (W×H×D)	426 mm × 221.5 mm × 451 mm mm
Weight	18 kg (without options) kg

Frequency

Frequency Range	30 MHz to 2.7 GHz

RF Input/Output

Maximum Input Level	+35 dBm
Main Port Connector Type	N type
Main Port VSWR (<1.6 GHz)	<=1.2
Main Port VSWR (1.6 to 2.2 GHz)	<=1.25
Main Port VSWR (>2.2 GHz)	<=1.3
Auxiliary Port Connector Type	N type

Reference Oscillator

Reference Oscillator Connector Type	BNC type
Reference Oscillator Frequency	10 MHz
Reference Oscillator Startup Characteristics	<=+/-5 x 10^-8 (at 10 min after startup referenced to frequency 24 h after startup)
Internal Reference Oscillator Temperature Stability	±5 × 10^-8 (0°C to +50°C, referenced to 25°C)

External Reference Input

External Reference Input Connector Type	BNC type
External Reference Input Level	>=0 dBm

RF Signal Generator

RF SG Frequency Range	30 to 2700 MHz
RF SG Frequency Setting Resolution	1 Hz
RF SG Output Level Resolution	0.1 dB
RF SG Non-harmonic Spurious	<=-50 dBc (at offset frequency >=100 kHz, except Uplink frequency - Downlink frequency + 4.1825 GHz)
RF SG Non-harmonic Spurious (>=2.1 GHz)	<=-40 dBc [spurious of (4.8 GHz - Downlink frequency GHz) GHz]
RF SG Harmonics	<=-25 dBc
RF SG Output Level Accuracy	±1.0 dB (30 MHz to 2.2 GHz, -15 to -120 dBm), ±1.2 dB (2.2 GHz to 2.7 GHz, -15 to -120 dBm)

Supported Protocols

Supported Technologies	W-CDMA / HSDPA, GSM / GPRS / EDGE, 1xEV-DO
HSDPA UE Category Support	Categories 1 to 6, 11, and 12
EDGE/EGPRS Coding Schemes	MCS1-MCS4 (GMSK modulation) and MCS5-MCS9 (8PSK modulation)

Measurement Capabilities

Call Processing Features	Registration, Origination, and Termination (3GPP)
Receiver Measurement Capabilities	Bit Error Rate (BER) and Block Error Rate (BLER)
Receiver Loopback Method	3GPP loopback method
Transmitter Measurement Standard	3GPP TS34.121
Transmitter Measurement Items	12 items including Modulation analysis, Adjacent channel power ratio, and Peak code domain error
Voice Test Capabilities	Echo-back function during conversation, real-time communication with audio codecs

Operating Modes

Batch Measurement Mode	One-touch operating mode with Pass/Fail evaluation
Parallel Test Capability	Parallel phone measurement for simultaneous testing of two phones (with options)

Remote Control

GPIB Interface Functions	SH1, AH1, T6, L4, SR1, RL1, PP0, DC1, DT1, C0, E2

RF Analyzer

RF Analyzer Frequency Range	30 MHz to 2.7 GHz
RF Analyzer Input Level Range (Main Port)	-40 dBm to +35 dBm
RF Analyzer Input Level Range (Auxiliary Port)	-70 dBm to +10 dBm
RF Analyzer Measurement Accuracy	±0.8 dB (30 MHz to 2.2 GHz, -20 to +35 dBm), ±1.0 dB (2.2 GHz to 2.7 GHz, -20 to +35 dBm)

Environmental

Storage Temperature Range	-20 °C to +60 °C

Inputs & Outputs

External Display Output Port	15-pin D-sub (VGA)
Printer Interface Port	25-pin D-sub (Centronics)

Storage & Expansion

PC Card Interface	PCMCIA Type II (1 slot)

Power Supply

Maximum Power Consumption	≤300 VA (including options)

TECHNOLOGY

Radio Communication Testing

APPLICATIONS

Mobile Terminal Transmitter and Receiver Testing