ROHDE & SCHWARZ

SMIQ02E

The Rohde & Schwarz SMIQ02E is a versatile RF vector signal generator belonging to the legacy SMIQ family. Covering a frequency range of 300 kHz to 2.2 GHz, it is engineered for advanced analog and digital modulation schemes, making it highly suited for the development and testing of mobile communication equipment, base stations, and digital video transmission systems.

SPECIFICATIONS

Frequency

Minimum Frequency	300 kHz Hz
Maximum Frequency	2.2 GHz Hz
Frequency Resolution	0.1 Hz

Output

Maximum Output Power	13 dBm dBm
Output Power Range	-144 dBm to +13 dBm

Modulation

Modulation	AM, FM, Pulse, IQ (via Universal Modulation Coder)
Sweep Modes	Linear, Log, List

General

Reference Oscillator	10 MHz (External Input supported)
Interfaces	IEC 625-2 (IEEE 488.2) GPIB, RS-232, TTL trigger input/output
Display	Backlit LCD graphic display (320 × 240 pixels)
Target Applications	Mobile Phone Design & Test, Base Station Design & Test, Digital Video Compression & System Design, Wideband CDMA Development

Physical

Power Supply	90 V to 265 V AC, 47 Hz to 440 Hz
Dimensions (W×H×D)	435 mm × 192 mm × 573 mm mm
Weight	18 kg kg

Frequency Specifications

Internal Reference Aging Rate	1 × 10^-6 / year
External Reference Input Frequency	10 MHz

Amplitude Specifications

Minimum Output Power	-144 dBm
Amplitude Resolution	0.1 dB
Output Impedance	50 Ω

Spectral Purity

Harmonics	-30 dBc

System Connectivity and Interfaces

External Modulation Inputs	Yes

Vector Modulation and Baseband

Universal Modulation Coder	Supported
Fading Simulator	Supported

Power

Power Consumption	approx. 250 VA

Environmental

Operating Temperature Range	0 °C to +55 °C
Storage Temperature Range	-40 °C to +70 °C

RF Output

RF Output Connector	N-type female, 50 Ω

Inputs & Outputs

I/Q Input Connectors	BNC female (front panel)

Reference Frequency

Reference Output Frequency	10 MHz

Interfaces & Control

Command Set	SCPI

TECHNOLOGY

RF Vector Signal Generator

APPLICATIONS

Mobile communication testing, base station design, and digital video system development