

Spectrum Analyzers

Compact, Lightweight, 3-Way Power Source, 26.5GHz

U3661

- Ultra-compact, lightweight 8kg or less
- Battery operation available
- Frequency range: 9kHz to 26.5GHz
- Synthesized local oscillator
- Many measuring functions provided as standard
 - Internal pre-amp with 0dB gain
 - Reduced dB measurement
 - ACP
 - OBW
 - AVE and TOTAL POWER
- Built-in 1Hz resolution frequency counter



U3661

Spectrum Analyzer

The U3661 is a microwave spectrum analyzer with the measurement frequency range expanded to 26.5GHz as well as the inherited features of the U3641 including the compact body, and battery operation.

It has the weight and performance ideal for field as an indispensable instrument for maintenance inspection of microwave communication facilities.

This portable analyzer provides enhanced basic performance with high-precision, high-stability measurements, a minimum sweep width of 1kHz by means of a synthesized local oscillator, and time domain measurements utilizing 50 μ s high-speed sweep.

■ The Lightest Spectrum Analyzer in Its Class at 8kg (Max.)

The U3661 has a main unit mass of 8kg or less, easily portable for a microwave spectrum analyzer with a measurement frequency range from 9kHz to 26.5GHz.

■ Battery Provides 1.5 Hours of Operation. Three Power Sources to Choose From

The U3661 operates not only on 100/200 VAC power but also on +10 to +16 VDC external power or on the battery pack; three-way power supply. It is designed to operate in any power source environment. The battery pack can be easily attached/removed by a one-touch operation and rapidly recharged in one hour. It allows approximately 1.5 hour continuous operation on a full recharge, enabling logistically wide-ranging operation such as maintenance/installation work.

■ High-stability Measurement by Means of Synthesized Local Oscillator

Synthesizing of a local oscillator enables measuring the transmission characteristics (ACP, OBW) of narrow-band radio communication facilities.

The sideband noise, -105 dBc/Hz or less, achieves the best performance in its class, enabling high-accuracy measurements even in field use.

■ 50us High-speed Sweep Function

In Zero Span mode (fixed tuning mode without frequency sweep), the sweep time can be set up to 50us. This makes it possible to observe TDMA waveforms for PDC and PHS, and to perform detailed analysis through magnified display of rising and falling burst waveforms.

■ Variety of Measurement Functions

1Hz resolution counter, occupied frequency bandwidth, adjacent-channel leakage power, AM/FM audio monitoring, AM modulation measurement, reduced dB measurement, gated sweep.

Specifications

Frequency

| | |
|---------------|--|
| Range | : 9 kHz to 26.5 GHz |
| Band (N) 0(1) | : 9 kHz to 3.2 GHz |
| 1(1) | : 3.0 GHz to 7.1 GHz |
| 2(2) | : 6.7 GHz to 14.5 GHz |
| 3(3) | : _____ |
| 4(4) | : 13.7 GHz to 26.5 GHz |
| Accuracy | : Freq readout × Fref Acc +5%Span + 15%RBW + 60 × N |
| SPAN setting | : 10 kHz - 26.5 GHz |
| Accuracy | : ±5% |
| RBW | : 1 kHz to 3GHz (Opt. 100 Hz to 300 Hz) |
| VBW | : 1 Hz to 1 MHz (1-10 Step) |
| C/N | : -100 dBc/Hz+20LogN @ 10 kHz -105 dBc/Hz+20LogN @ 20 kHz -110 dBc/Hz+20LogN @ 100 kHz |
| Residual FM | : < (60 × N) Hz pp in100mS |
| Drift | : 150 Hz × N (Span<10 kHz) |
| Reference | : ±2 × 10 ⁻⁶ /Year Temperature ±1 × 10 ⁻⁵ |

Level

| | |
|---------------------|---|
| Max level | : +30 dBm |
| Noise level | Band 0 : -117 dBm + 2f(GHz) (1 MHz to) |
| | Band 1 : -112 dBm RBW 1 kHz |
| | Band 2 : -109 dBm ATT 0 dB |
| | Band 3 : _____ VBW 10 Hz |
| | Band 4 : -100 dBm |
| Display Range(LOG) | : 100 dB |
| Total accuracy | |
| Calibrator accuracy | : ±0.3 dB @ -20 dBm |
| RBW switching | : ±1 dB |
| Log linearity | : ±1.5 (90 dB) |
| Freq Response | Band 0 : ±2 dB |
| | Band 1 : ±2 dB |
| | Band 2 : ±4 dB |
| | Band 3 : _____ |
| | Band 4 : ±5 dB |
| Gain compression | : 1 dB -10 dBm f>10 MHz |
| Spurious Response | : Value/condition |
| 2nd Distorsion | : -70 dBc 10 MHz to 3.2 GHz(-30 dBm in) : -80 dBc (>3.2 GHz)(-30 dBm in) |
| 3th Intermod | : -70 dBc (-30 dBm in) |
| Residual Response | : -100 dBm 1 MHz to 3.2 GHz ATT0 dB -90 dBm 3.2 GHz to input term50 |

Sweep

| | |
|---------------|---|
| Sweep time | : 50 ms to 1000 s 50 μs to 100 s SPAN 0 |
| Sweep Trigger | : Free run./Single/Video/Ext./TV |

Function

| | |
|-------------------|-------|
| Display type | : TFT |
| Detector | |
| Trace Display | |
| Built-in function | |
| Display/nb,point | : 701 |

General

| | |
|-------------|----------------------------------|
| Temperature | : 0 to 50 °C |
| Power | : <70 W |
| Size | : 148 (H) × 291 (W) × 330 (D) mm |
| Mass | : 8.3 kg |