

# 규격서

| 장비명     | Item No. | 정부물품<br>분류번호<br>(10자리) | 품 명           | 단 위 | 수 량 |
|---------|----------|------------------------|---------------|-----|-----|
| 스펙트럼분석기 | 1        | 4111530301             | 스펙트럼분석기(5G범용) | 대   | 00  |

## I. End-user's Use

본 장비는 무선국검사를 정밀하게 측정하기 위한 장비로서 각종 RF 장비를 측정·분석 평가하고, “무선국 및 전파응용설비의 검사업무 처리기준” 등에서 정한 무선국 검사업무에 적합하여야 한다.

## II. Configurations of Goods

1. Spectrum Analyzer
2. Oven Cristal Oscillator or more
3. Electronic Attenuator 3.6 GHz 이상
4. Pre-Amplifier (40GHz)
5. WCDMA (inclu. HSDPA) BS test Application
6. LTE(FDD/TDD) BS test Application
7. LTE-A(FDD/TDD) BS test Application
8. 5G NR test Application
9. LO/IF Ports for External Mixers
10. carrying handle and protective corner rubber guards
11. Adaper provide : Type-N(F) to (2.92 mm or 2.4 mm)
12. Case bag(soft)

## III. Performance and Specifcation

### A. Features and configurations

1. System check : Self Test
2. Base Operation System : Window based
3. Internal Storage Memory : more than 60 Gbyte

4. Usable Interface : more than USB, Ethernet Port, External Mixer Port(LO/IF)
5. Display Level Unit : more than dBm, dBmV, dBuV
6. Total Weight : Less than 21 kg
7. Display : more than 8.4"(touch screen)
8. Operation Temperature : more than 0 to +50 °C
9. Power Supply : more than 110 ~ 220 VAC, 60Hz

## B. Specifications

### 1. Frequency Specification

- 1.1. Frequency Range : 10 Hz ~ 40 GHz or more
- 1.2. Frequency Aging Rate/Year :  $\pm 1 \times 10^{-7}$  or less
- 1.3. Temperature stability :  $\pm 5 \times 10^{-8}$  or less
- 1.4. Sweptune & FFT mode : Sweptune, FFT
- 1.5. Frequency counter resolution : 0.001 Hz or less
- 1.6. Max Demodulation Bandwidth : 160 MHz or more
- 1.7. Sweep time Range : 1 ms to 4,000 s or more (span = over 10 Hz)
- 1.8. Resolution bandwidth(RBW) : 1 Hz ~ 8 MHz or more (Without option)
- 1.9. Video bandwidth(VBW) : 1 Hz ~ 8 MHz or more
- 1.10. SSB phase noise
  - 1.10.1. Offset 10 kHz : -110 dBc/Hz or less, at 500 MHz
  - 1.10.2. Offset 10 MHz : typ. -148 dBc/Hz or less, at 500 MHz

### 2. Measurement Specification

- 2.1. Measurement Speed of Marker peak search : 2 ms or less
- 2.2. Measurement range : DANL ~ 30 dBm or more

### 3. Amplitude Specifications

- 3.1. Amplitude Accuracy :  $\pm 0.35$  dB or less, at 50 MHz

### 4. Intermodulation

- 4.1. SHI(Second harmonics intercept point)
  - 4.1.1. Preamp on : +10 dBm or over @ 3 GHz

4.2. TOI(Third-order intercept point)

4.2.1. Preamp on : 0 dBm or over @ 3 GHz

4.3. 1 dB gain compression

4.3.1. Preamp on : -14 dBm or over @ 3 GHz

5. DANL(Display average noise level) : -161 dBm or less @ 3 GHz, preamp on

6. Attenuator : 90 dB or more, 1 dB Step

7. Reference level Range : -130 ~ +30 dBm or more

8. RF Input

8.1. VSWR : 1.5 : 1 or less, at 3.0 GHz

8.2. Input connector & Impedance : 2.92mm(f) or 2.4mm(m), 50Ω

8.3. Maximum Continuous Input : +30 dBm or more