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ATTEN®
INSTRUMENTS

# ATN3021/ATN3022
# Vector Network Analyzer

ATN3022

ATN3021

**TEST METHOD:** Can do the full-span scan, List scan and Point-frequency scan.

**TEST FUNCTION:** Can test the Transmission parameter (the amplitude-frequency characteristic, insertion loss, phase, the gain of amplifier, the gain of antenna,group delay, option for the antenna orientation chart measurement) and Reflection testing (test standing wave, return loss, impendence, reflection phase, electric length, display the smith circuital chart function,opt permittivity & testing function),time-domain fault orientation function.

**TEST FORMAT:** Display as the logarithm amplitude and the amplitude phase at the same time. Reflection testing displays the logarithm display,standing wave ratio display, the Smith circuital chart display

**DISPLAY OUTPUT:** 5"CRT kinescope display

**RECORD DEVICE:** Printer or U disc.

## USING RANGE AND RELEVANT CAPABILITY

◆ Suitable for radio, television, telecommunications, radar etc.feedback system's testing and higher education college's RF microwave teaching experiment.

◆ After selection can test the 50Ω,75Ω,100Ω

◆ Optional time-domain fault orientation function can check the fault location of coaxial cable in the feedback system. Testing rang is: 0-1200m, orientation true. The resolution is about ±3mm when the length about 10m, the resolution is ±1cm when the length about 30m.

◆ Match the relevant testing accessory (impedance transformer, difference bridge etc) can test the transmission line's characteristicimpedance, insertion loss, time-lapse, phase shift etc. Specifications of the coaxial cable, wisted pair, coaxial connector and transmission line. It can also be used to detect the RF cable's leakage and shield capability.

◆ Relevant probe, can test the permittivity constant of the relevant liquid, plane solid and powder etc.

## THE MAIN SPECIFICATIONS

| Item No. | | | ATN3021 | ATN3022 |
|---|---|---|---|---|
| Signal source | Frequency span | | 30-3200MHz | |
| | Frequency accuracy | | $10^{-5}$ | |
| | Resolution of Frequency | | 0.025MHz | |
| Display | The Resolution of Insertion-loss | | The indeterminacy of 0.01dB/div is 4% of 0.2dB±dB in 50dB | |
| | The resolution of reflection | | The indeterminacy of 0.002 is 0.01(the surplus standing wave is 1.02) | |
| | The resolution of phase | | 0.1° ,the indeterminacy is about 5° /div | |
| The characteristic of Measurement | Frequency range | | 30-3200MHz | |
| | The bate of the mixed wave | | 40dB | |
| | Group delay | | 1ns-40μs | |
| | Time-domain fault orientation | | 0~1200 m divided 9 degree | |
| | Test Antenna orientation chart(option) | | 1° one record (totally 361 dot) | |
| | Dynamic range | Insertion loss | 80dB | |
| | | Return loss | 50dB | |
| | | Gain | -20-30dB | |
| Port - Characteristic | Reflection bridge direction | | ⩾35dB | |
| | Load return loss | | ⩾40dB | |
| | Testing port | | N type single channel | N type dual channel |
| Others | Dimension | | 430(width)*133(height)*450(length) | |
| | Weight | | 13kg | |
| | Standard accessory | | 50Ω N kit | |
| | Optional accessory | | 75Ω N testing kit, SMA testing kit, TV frequency modulation anti-interfere special bridge | |

## ACCESSORY

**50Ω N Kit (30~3200MHz/30~6000MHz)**

Reflection bridge (1 pcs)
10dB attenuator(SWR=1.4) (2pcs)
Matched load (1pcs five head)
Protection connector (1pcs)
Matched load (1pcs K head)
Circuit opener JK (each 1 pcs)
Unmatched load(1pcs)
Circuit–shorter JK (each 1pcs)

**50Ω SMA Kit (30~3200MHz/30~6000MHz)**

Reflection bridge (1 pcs)
10dB attenuator(SWR=1.4) (1pcs)
Matched load J head (1pcs)
Protection connector (1pcs)
Matched load K head (1pcs)
Circuit opener JK (each 1 pcs)
Unmatched load(1pcs)
Circuit–shorter JK (each 1pcs)

**75Ω N Kit (5~2500MHz)**

Reflection bridge (1 pcs)
Impedance transformer (50Ω–75Ω1pcs)
Matched load J head (1pcs)
Protection connector (1pcs)
Matched load K head (1pcs)
Circuit opener JK (each 1 pcs)
Unmatched(1.4) load(1pcs)
Circuit–shorter JK (each 1pcs)
Dual male (1pcs) / Dual female(1pcs)