KEYSIGHT

FieldFox RF Analyzer N9912C
Carry Precision with you

KEYSIGHT

FieldFox N9912C Overview

FieldFox N9912C in brief – single model, endless possibility

Freq Range: 5kHz to 10 GHz
Real time bandwidth: 40MHz

Device Test

1. Cable and antenna test
2. TDR
3. VNA / Time domain
4. Vector voltmeter
5. Power meter
6. Tracking generator

Signal Analysis

7. Spectrum analysis
8. Real-time spectrum analysis
9. Time gating
10. Interference analysis
11. Channel scanner
12. Analog demodulation (AM/FM)
13. OTA LTE, 5G OTA
14. Pulse measurement with peak power sensor
15. Frequency counter
16. EMI pre-compliance test
17. EMF measurement

Utilities

18. GNSS
19. DC voltage source
20. Secure erase
21. Mapping
22. Frequency extender

N9912C features and key specifications

Functions:

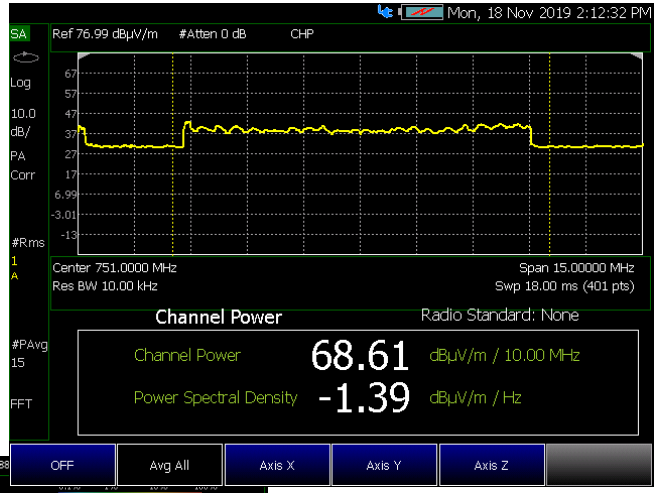
- All in one: VNA, SA, RTSA, OTA 5G/LTE, RF pulse measurement, power meter, signal generator etc..
- Frequency upgradable, allow SA and VNA frequency mix and match
- All options including frequency bands are software keycoded
- Meets MIL standards

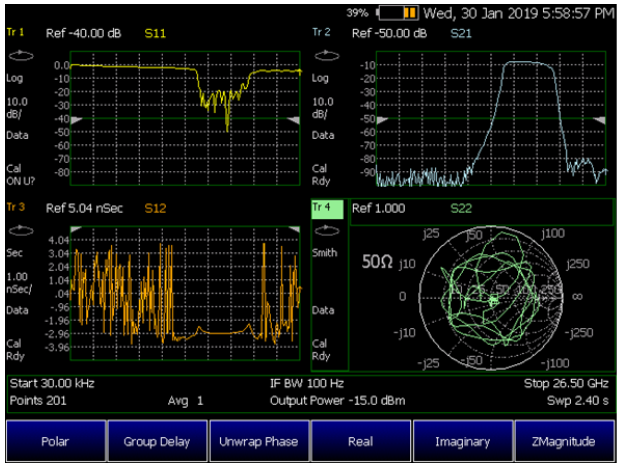
Key specification:

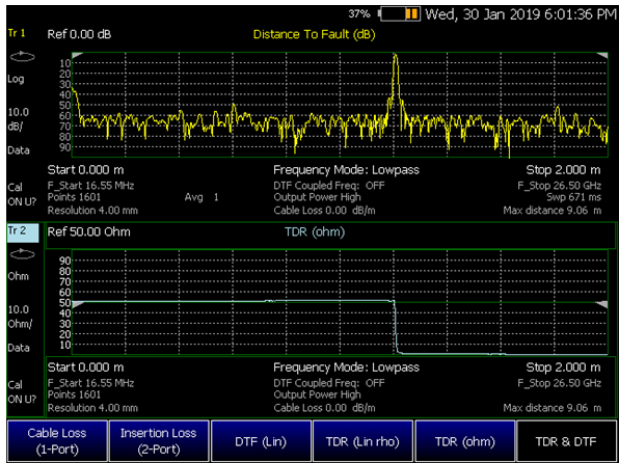
- Frequency: 3kHz to 10GHz
- Real time / demodulation bandwidth: 40 MHz
- VNA dynamic range: 100 to 110 dB;
- SA DANL: -160dBm
- Phase noise: -105dB @ 10 kHz offset

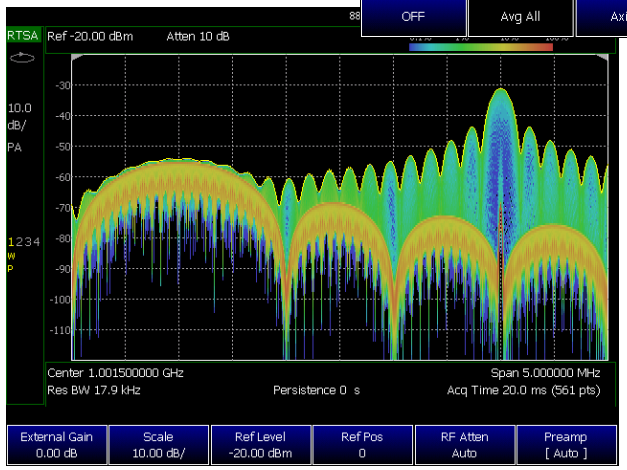
Product differentiators

- Provide excellent lower frequency measurements for SA and VNA. Broadcasting, DSL, EMI and HF spectrum monitoring
- Frequency is upgradable via software keycode
- SA, CAT and VNA frequency range can be mix and match. Like 10GHz SA + 7GHz VNA etc..









Fully software defined instrument

N9912C	FieldFox RF Analyzer
N9912C - CA4	cable and antenna analyzer 4 GHz
N9912C - CA6	cable and antenna analyzer 6.5 GHz
N9912C - CAX	cable and antenna analyzer 10 GHz
N9912C- NA4	Vector network analyzer (4GHz)
N9912C-NA6	Vector network analyzer (6.5GHz)
N9912C- NAX	Vector network (10 GHz)
N9912C-SA4	Spectrum analyzer 4 GHz
N9912C-SA6	Spectrum analyzer 6.5 GHz
N9912C-SAX	Spectrum analyzer 10 GHz
N9912C-235	Pre-amplifier 4GHz
N9912C-235	Pre-amplifier 6.5 GHz
N9912C-235	Pre-amplifier 10 GHz
N9912C - 220	Tracking gen

N9912C-010	Vector network analyzer time domain
N9912C-030	Remote control capability
N9912C-208	USB power sensor measurements versus frequency
N9912C-215	TDR cable measurements
N9912C-238	Spectrum analyzer time gating
N9912C-236	Interference analyzer and spectrogram
N9912C-302	USB power sensor support
N9912C-307	GPS receiver
N9912C-308	Vector voltmeter
N9912C-309	DC bias variable-voltage source
N9912C-310	Built-in power meter
N9912C-312	Channel scanner
N9912C-330	Pulse measurements
N9912C-350	Real-time spectrum analyzer (RTSA)
N9912C-352	Indoor and outdoor mapping
N9912C-355	Analog demodulation
N9912C-358	EMF measurements
N9912C-361	EMI measurements
N9912C-370	Over the air LTE FDD measurements
N9912C-371	Over the air LTE TDD measurements
N9912C-378	Over-the-air (OTA) 5G NR measurements
N9912C-B04	Bandwidth, 40 MHz

Flexible upgrade : frequency, bandwidth and functions

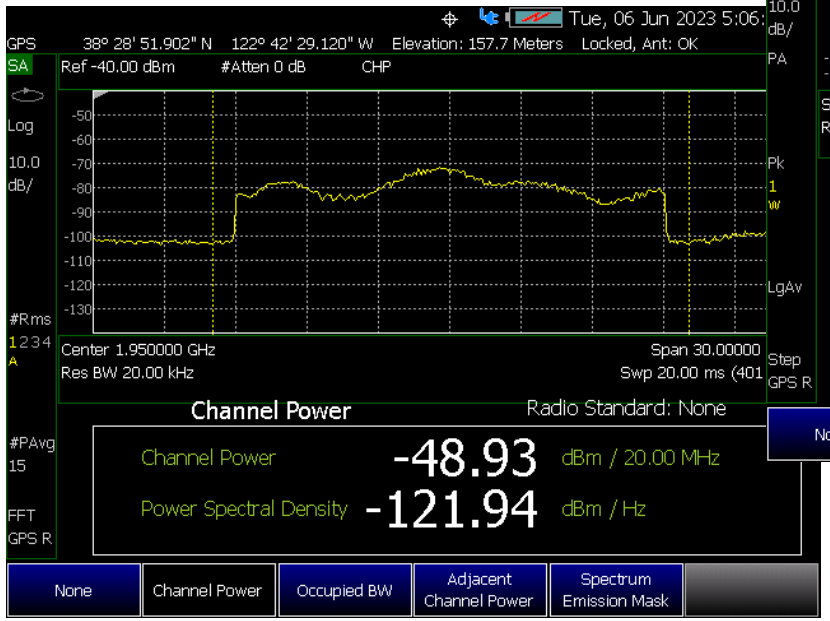
N9912CU	N9912C FieldFox RF analzyer upgrades
N9912CU - CA4	cable and antenna analyzer 4 (including insertion loss)
N9912CU - CA6	cable and antenna analyzer 6.5GHz
N9912CU - CAX	cable and antenna analyzer 10
N9912CU - C46	CAT upgrade to from 4 to 6.5 GHz
N9912CU - C4X	CAT upgrade from 4 to 10GHz
N9912CU - C6X	CAT upgrades from 6.5 to 10GHz
N9912CU- NA4	Vector network analyzer (4GHz) full 2port
N9912CU-NA6	Vector network analyzer (6.5GHz)
N9912CU- NAX	Vector network (10 GHz)
N9912CU - N46	VNA upgrade 4 GHz to 6.5 GHz
N9912CU - N4X	VNA upgrade 4 GHz to 10 GHz
N9912CU - N6X	VNA upgrade 6.5GHz to 10 GHz
N9912CU-SA4	Spectrum analyzer 4
N9912CU-SA6	Spectrum analyzer 6.5GHz
N9912CU-SAX	Spectrum analyzer 10
N9912CU-S46	SA upgrade from 4 GHz to 6.5GHz
N9912CU-S4X	SA upgrade from 4 GHz to 10GHz
N9912CU-S6X	SA upgrade from 6.5 GHz to 10GHz

N9912CU allows

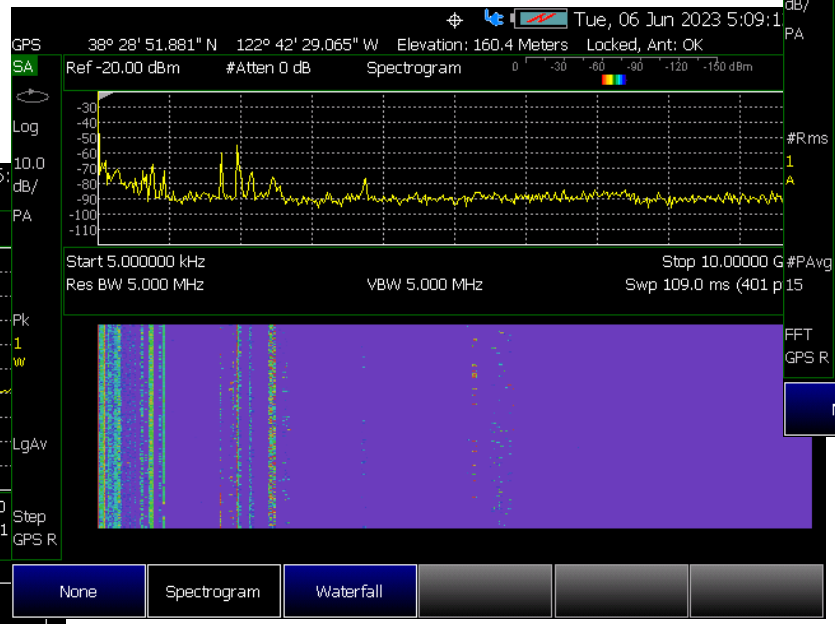
- Upgrades for frequencies;
- Functionality upgrades;
- Bandwidth

Spectrum analyzer measurements

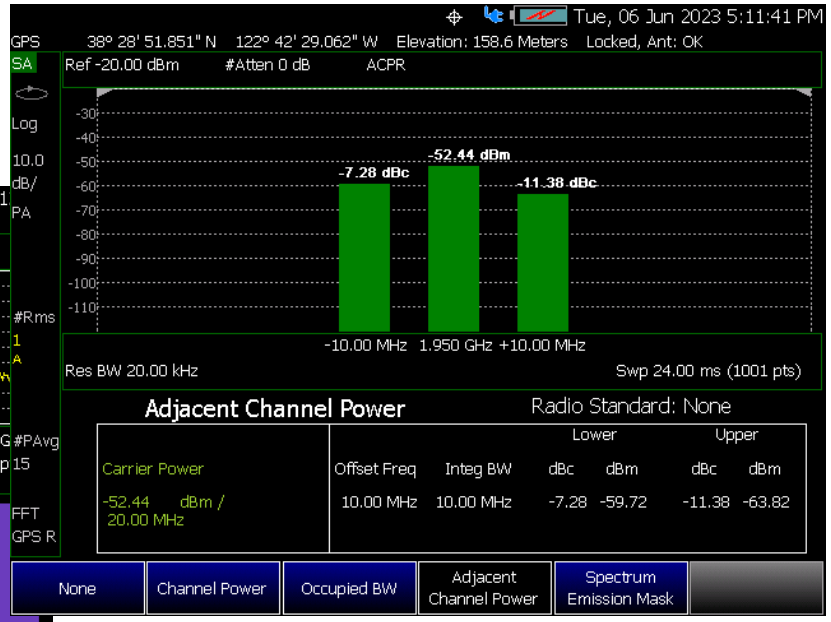
Channel power



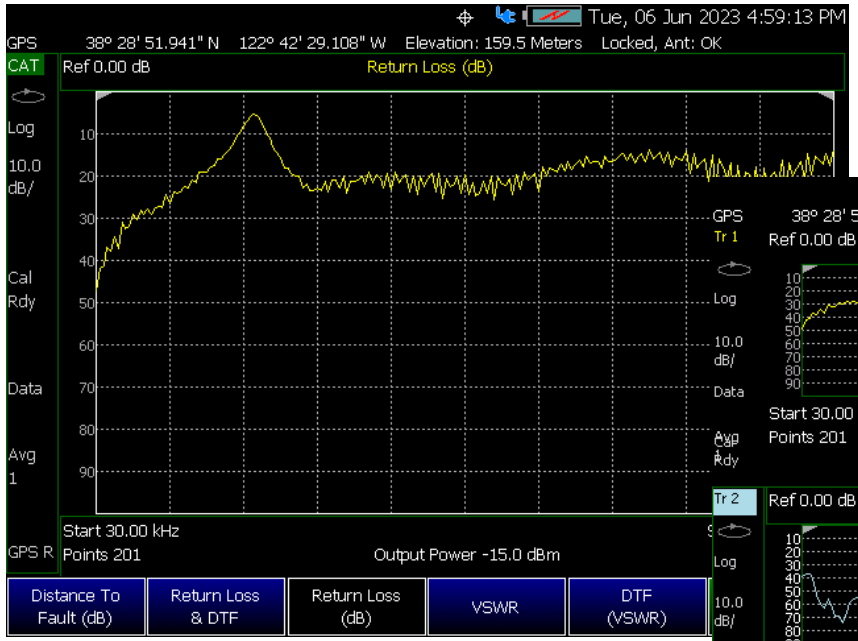
Spectrum and spectrogram



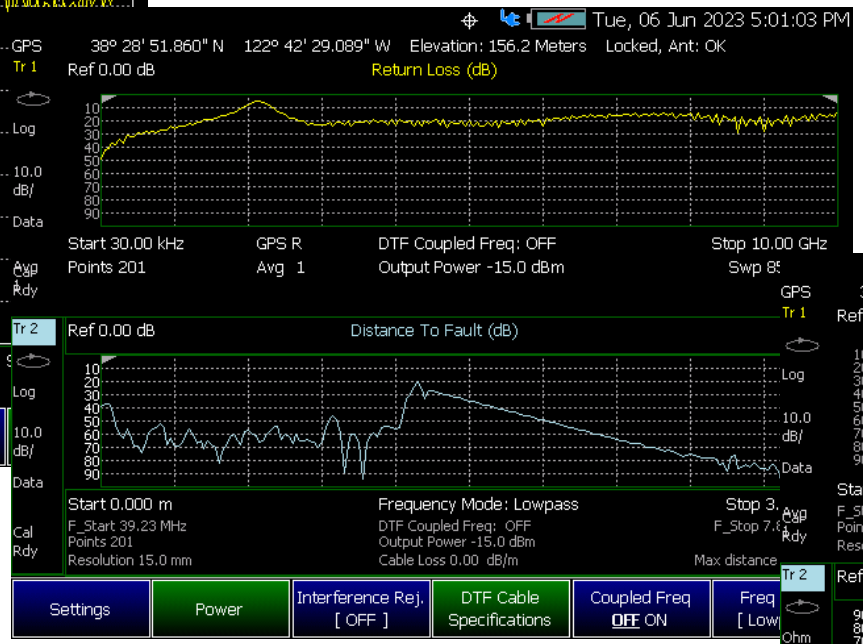
Adjacent Channel Power



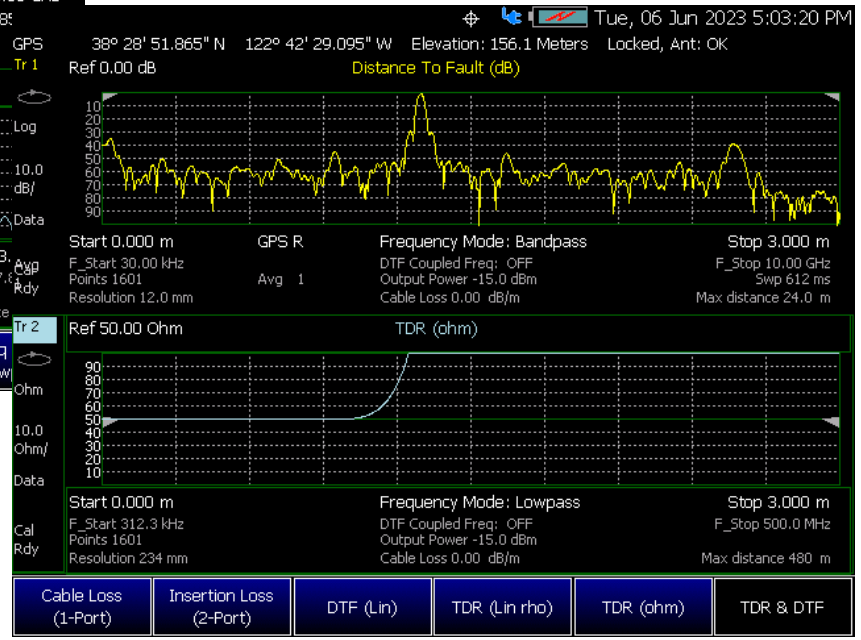
Cable and antenna analyzer



Return Loss

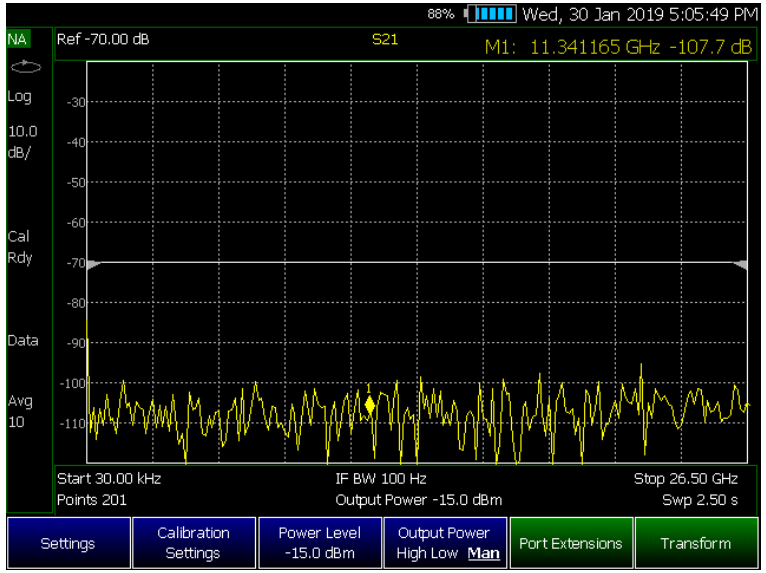


RL/DTF

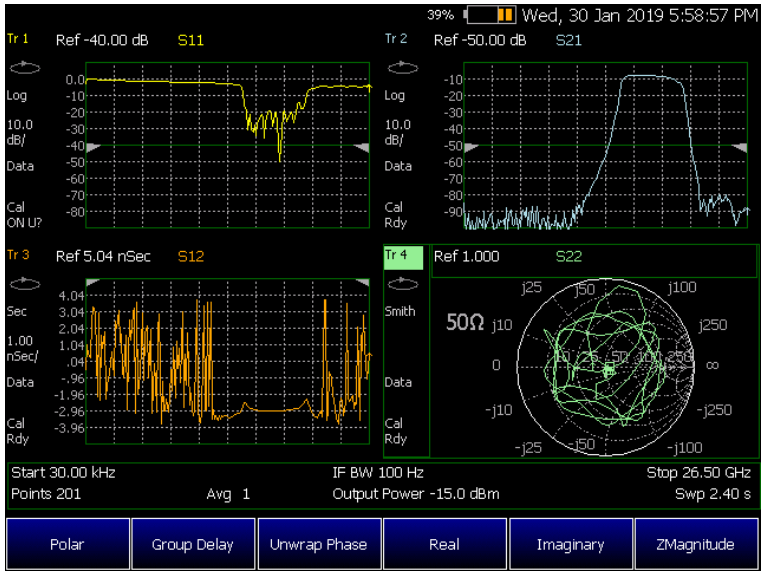


DTF/TDR

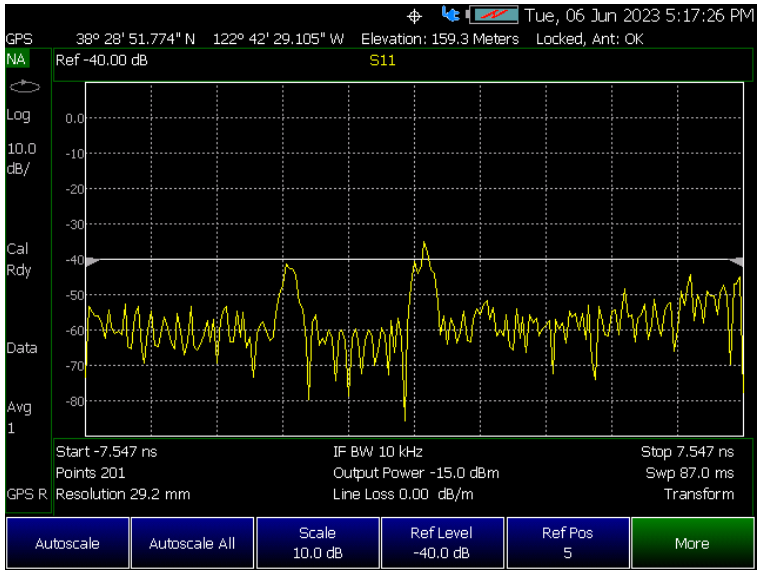
Vector Network and Cable/Ant Analyzer



S21 system dynamic range > 100 dB

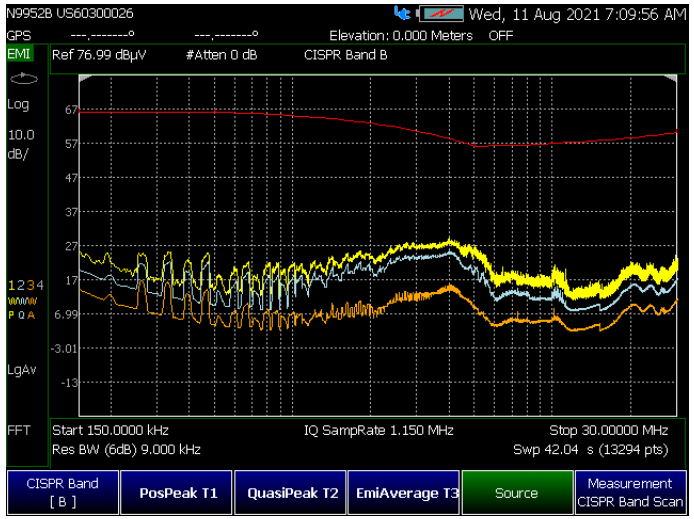


4 S-parameters

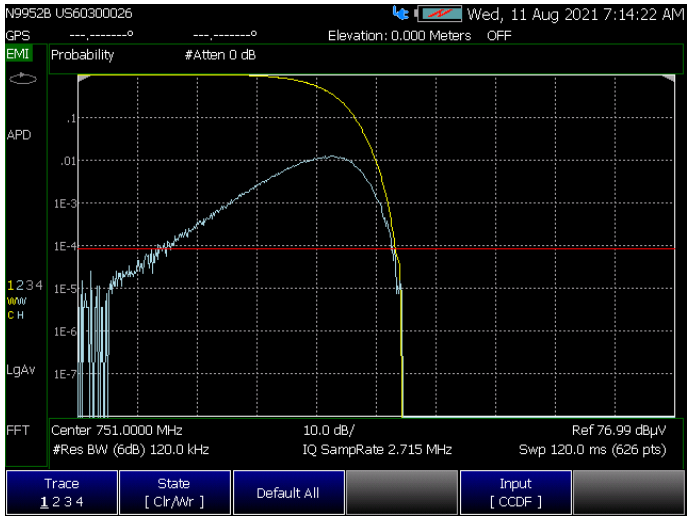


Time domain

All in one pre-compliance EMI handheld analyzer



- CISPR bandwidth: 200Hz, 9kHz, 120kHz and 1MHz
- CISPR detectors (6dB bandwidth): peak, quasi-peak and EMI average
- CISPR bands: A/B/C/D/E

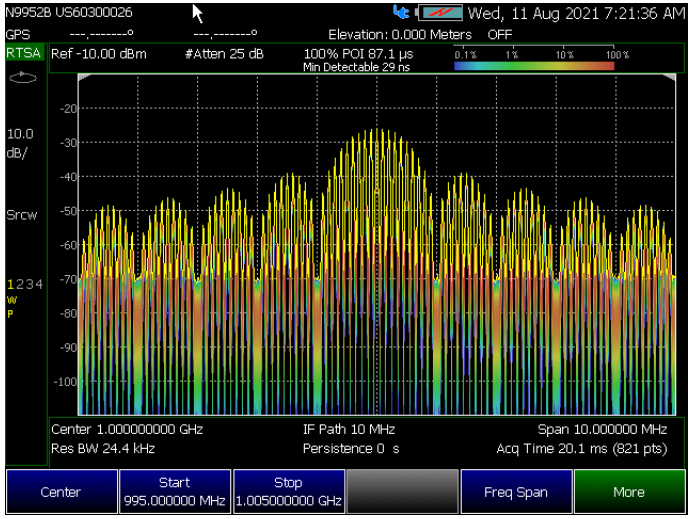


APD (Amplitude Probability Distribution)

- CCDF
- Histrogram
- CISPR and MIL 461 6dB bandwidth

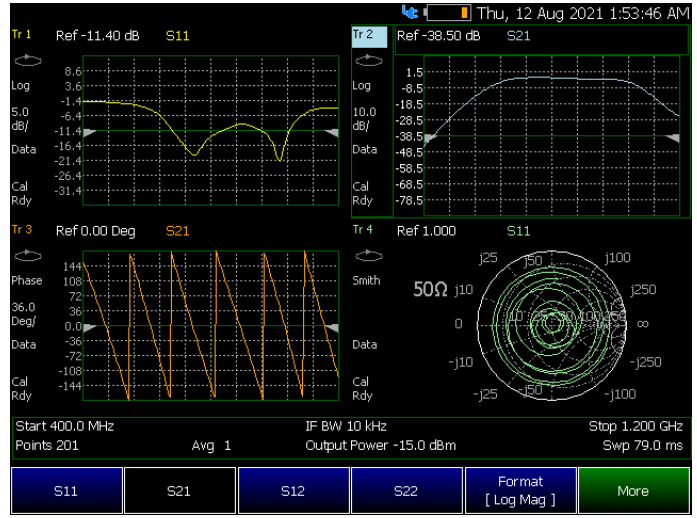
Real Time SA

- 120MHz real time bandwidth
- POI: 5.5us
- Min. Det. Signal: 47ns
- Density, spectrogram and trace modes



Full 2 port VNA

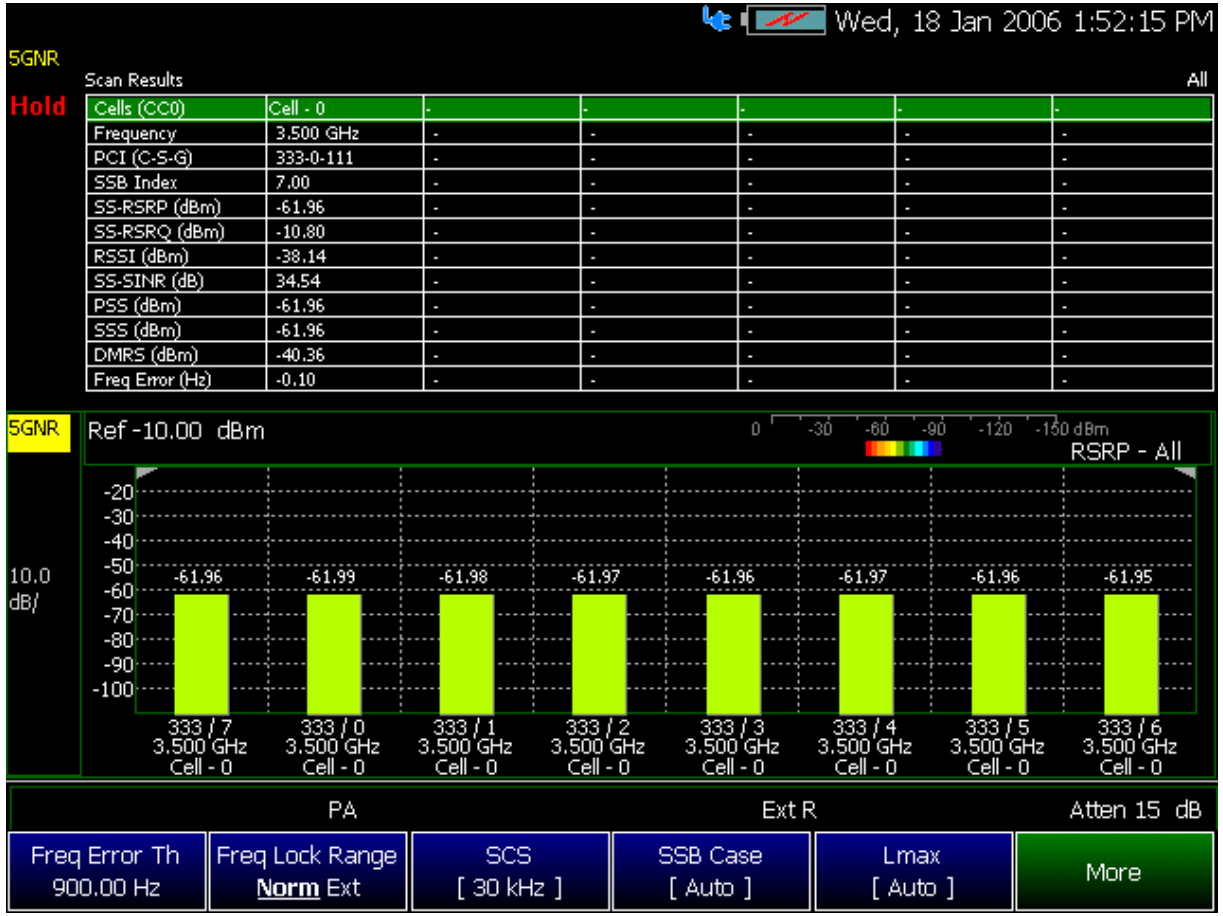
- 4 s parameters
- Magnitude and phase
- Group delay
- Impedance
- Smith Chart
- VSWR



5G NR OTA

Cell site info

Beam index scanning



- PCI
- RSRP
- RSRQ
- PSS and SSS power
- SINR
- DMRS power and SINR
- SSB index (beam index)
- Frequency error
- EIRP
- SSB location/auto detection
- Top N cell scanning
- Top N component carrier scanning
- Demodulation bandwidth: 100 MHz

Dynamic Spectrum Sharing test (5G NR / LTE FDD /TDD)

5G NR

LTE

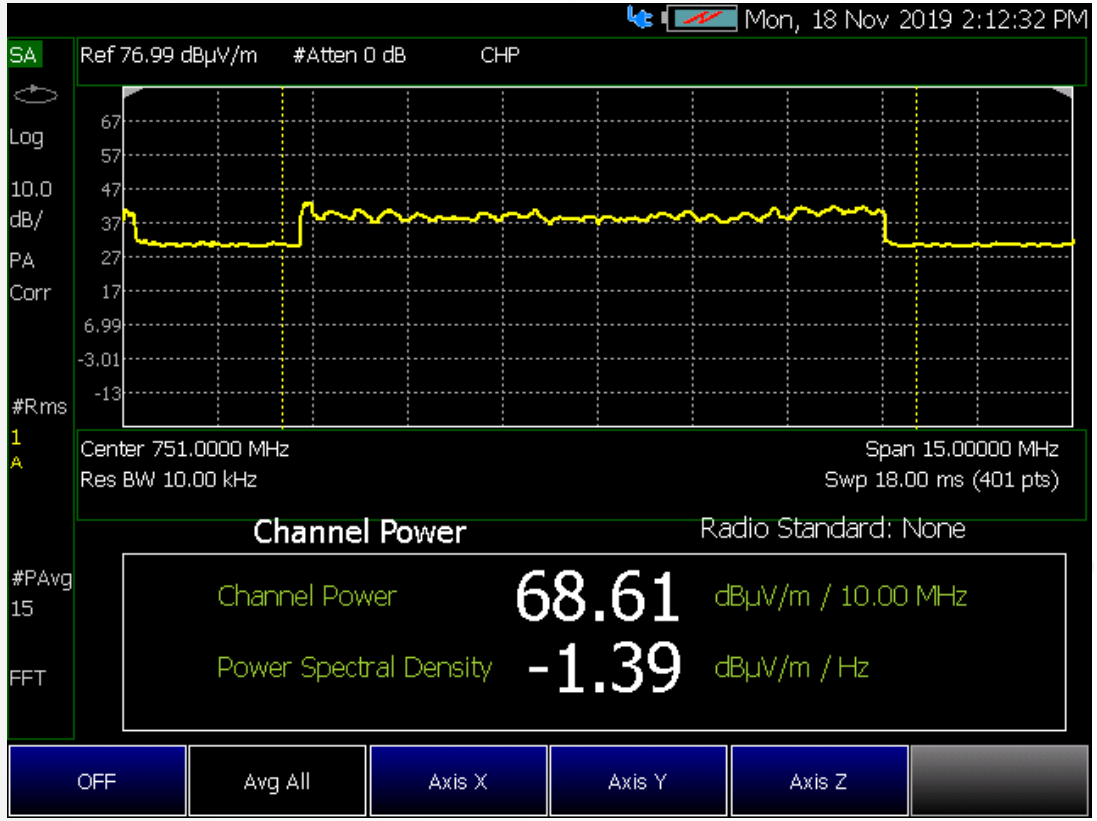
EMF support for 5G NR

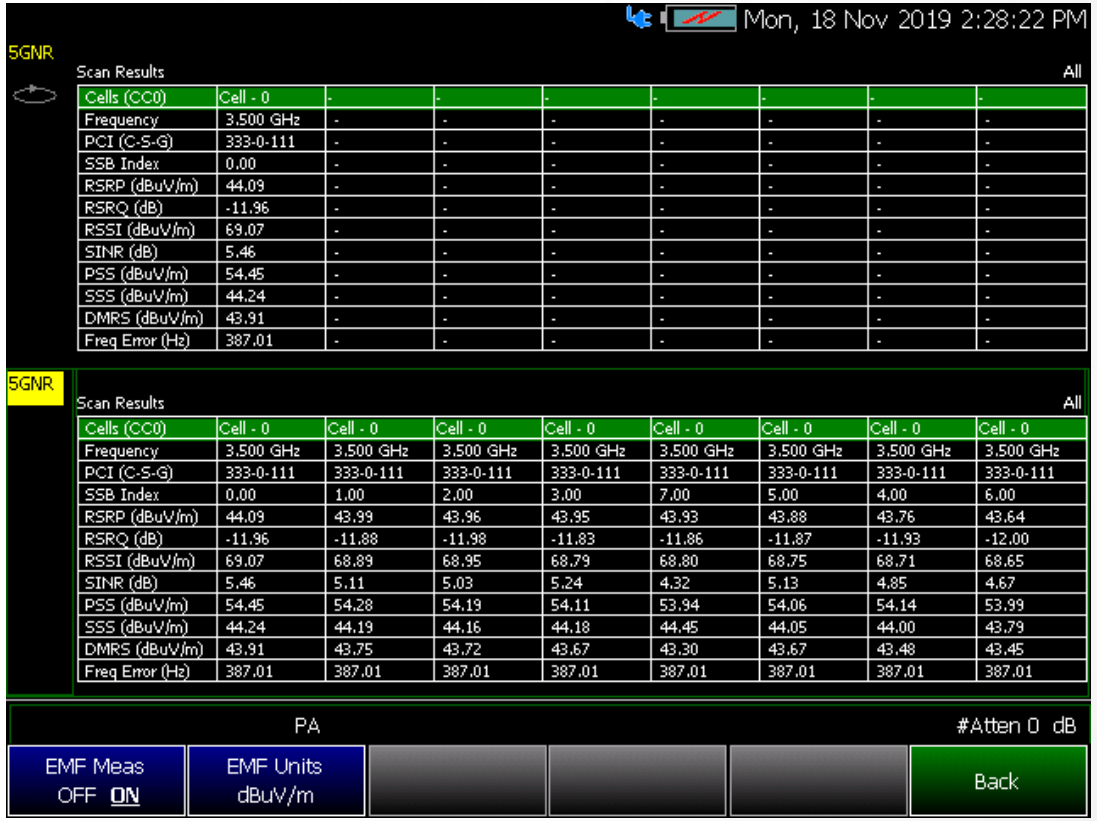
USB to control 3 Axis

- Measure field strength in OTA power report and SA mode
- There is MCU built in, it manages usb port, control which antenna to use (X,Y, Z), antenna factor is saved in the memory.
- USB control

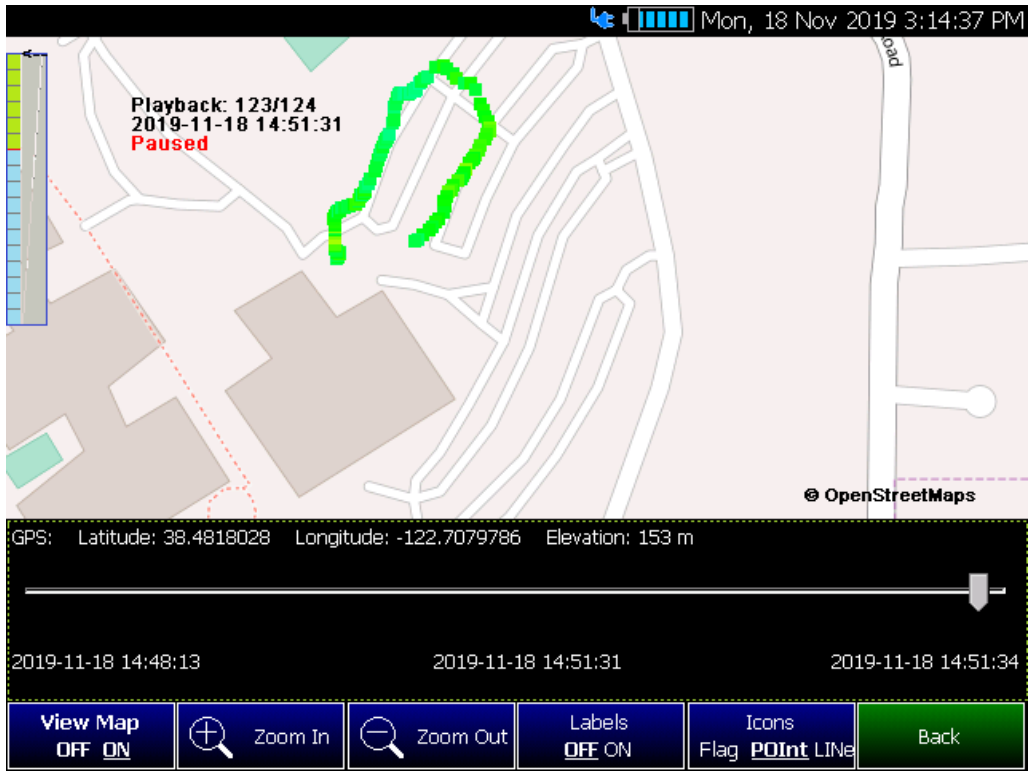
EMF measurements

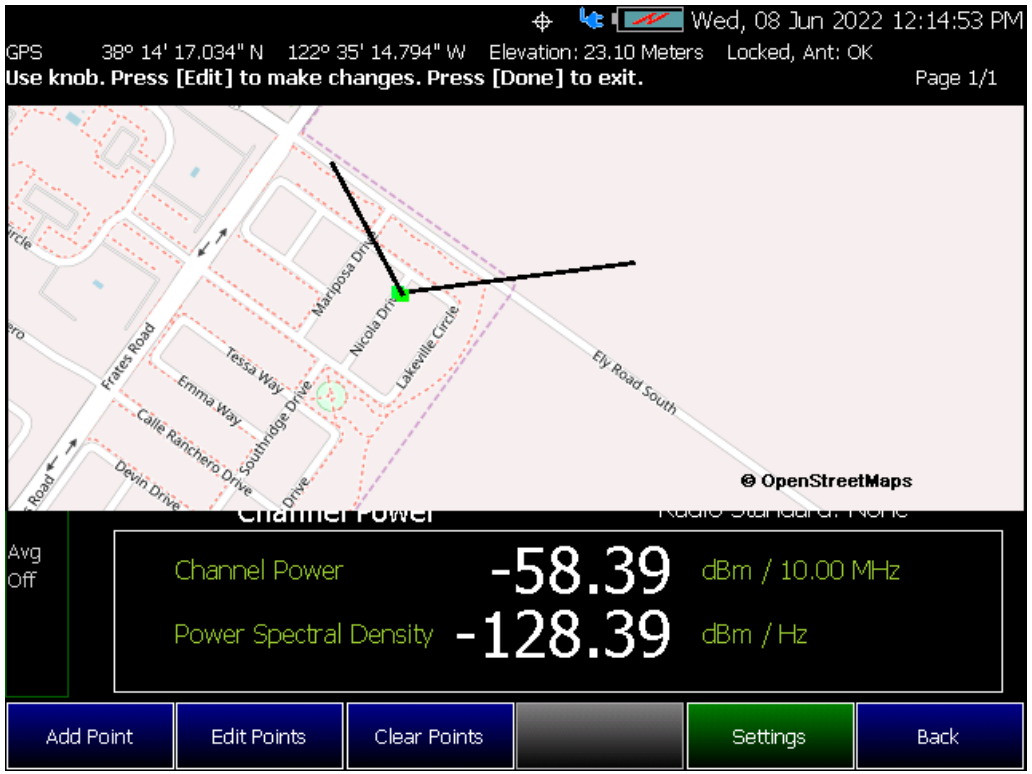
CHANNEL POWER, CHANNEL SCANNER AND 5G NR OTA





Manual DF - AoA

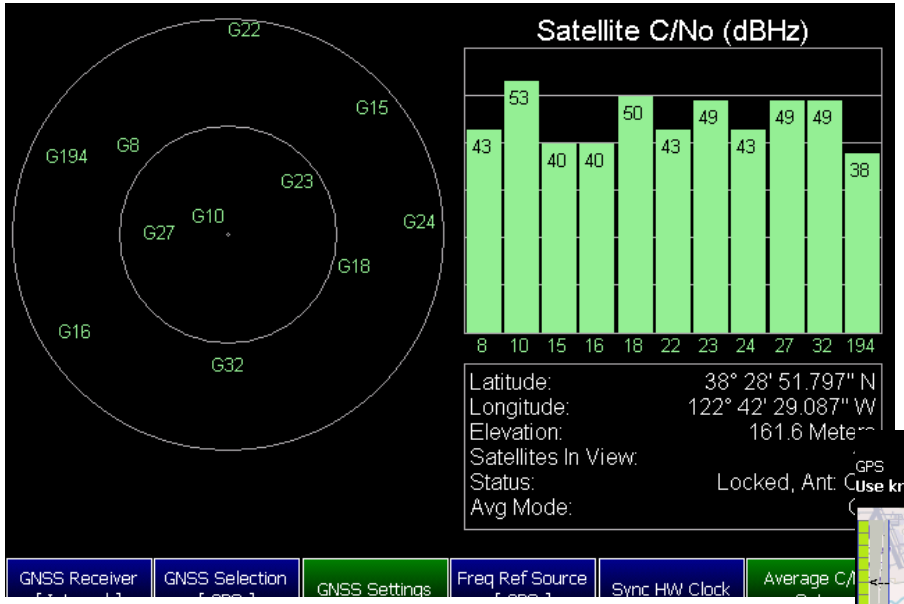




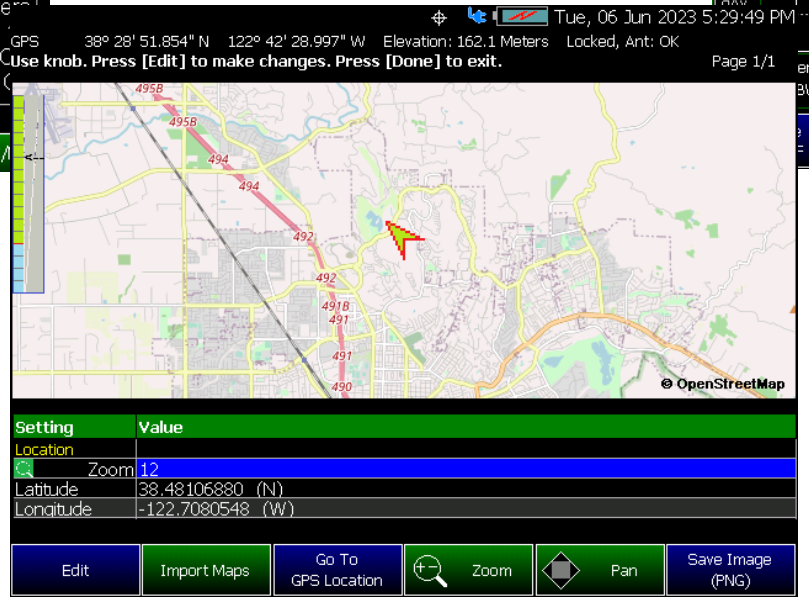
Drive or walk around to find hotspot

DF using directional antenna

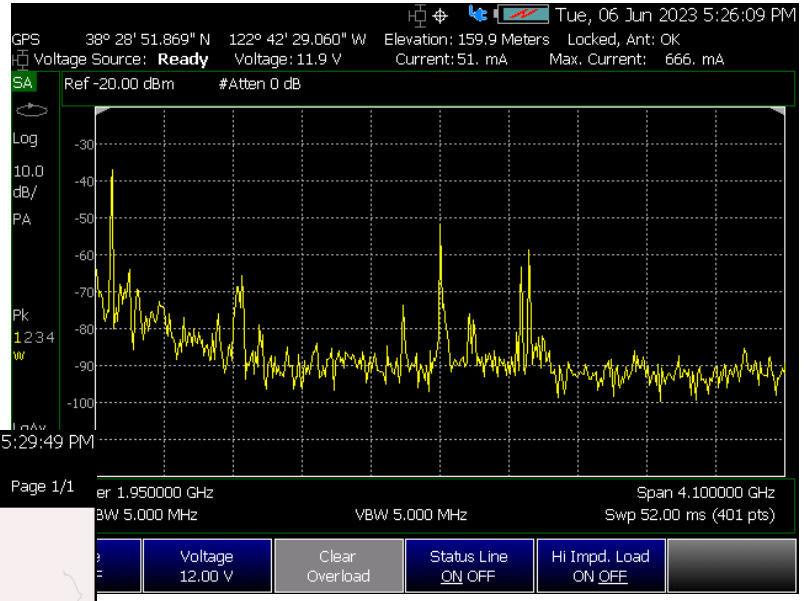
Utilities



GNSS /GPS



Map



DC Voltage Source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