3916 Series EMI Test Receiver (2Hz~50GHz)

Product Description

The 3916 series EMI test receiver is a certified high-performance receiver meeting series domestic and international EMC standards such as GB/T 6113, GJB151 and CISPR. It features excellent sensitivity, high accuracy, large dynamic range, top speed, etc, which supports various functions such as EMI standard compliance test, fast FFT time-domain test, EMI test diagnosis, full-featured spectrum analysis, etc., and can be applied in the field of pre-detection test and compliance test for the EMC standards, and used as a general-purposehigh-performance full-featured spectrum analyzerin the field of MW/MMW signal test.

Main Characteristics

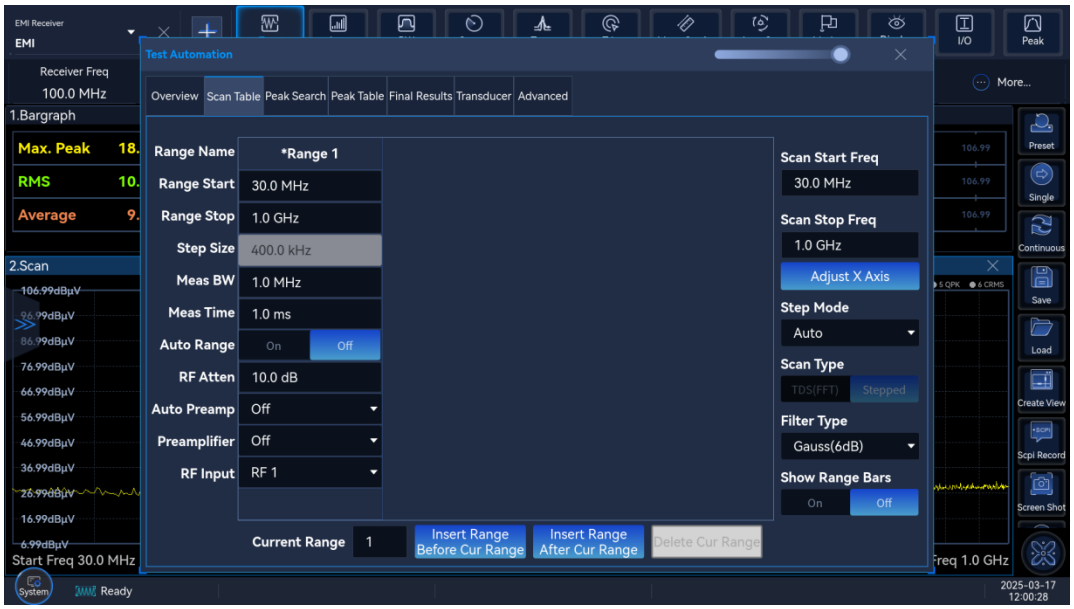
- EMC standard compliance test
- Conventional step sweep test and fast FFT time-domain test supported
- EMI test diagnostics
- High-performance and full-featured spectrum analysis
- Multiple EMC standards met and user entries supported
- Built-in low-noise amplifier and full-band preselector
- Signal reception with excellent sensitivity, high accuracy, low phase noise and wide frequency range
- Reception channel with surge protection provided
- Compatible with multi-manufacturer EMC system software and test systems

EMC Standard Compliance Test

- Typical EMI test interface
- CISPR-compliant FFT time-domain test and detector
- Built-in low-noise amplifier and full-band preselector
- Up to seven detection modes supported for simultaneous test
- Automatic discrimination of compliance test results
- Built-in standard limit line, and capable of standard limit line editing, transmission factor editing, sweep list editing, etc.

Typical EMI test interface

Multiple detection modes



Convenient and fast list editing

Fast FFT Time-domain Test

- FFT of up to 32768 points, parallel filtering and detection.
- 50~10,000 channels in one FFT step detection, with speed increased by 30~6250 times.
- Overlap rate of over 93.75% for FFT processing, with amplitude error of less than 0.4dB.

Quick setting for sweep type switching

EMI Test Diagnostics

- Automatic search for peak exceeding the limit
- Capable of setting the limit line margin to change the selection conditions of signals in the list.
- Automatic test of a series of frequency points with multiple detection modes.

Automatic search for peak exceeding the limit

Full-featured Spectrum Analysis

- Typical spectrum analysis interface
- Channel power measurement
- Occupied bandwidth measurement
- Adjacent channel power measurement

Abundant spectrum analysis functions

High Performance

- High frequency band covered to fully support the frequency test on excellent bands Ku and Ka of the LEO satellite.
- High efficiency, with pre-sweep + fixed-point final sweep of list based on fast FFT time-domain test to quickly locate the interference band.
- Typical display of average noise level of up to -163dBm (with amplifier ON)
- Typical TOI of +25dBm
- Typical phase noise of -135dBc/Hz at carrier of 1GHz and frequency offset of 10kHz
- Auto-calibration technology for high stability and accuracy of signal level measurement

Multiple Solutions

- Integrated solution to support EMC standard compliance test system

- Integrated solution to support PCB-level visualization interference diagnosis test system
- Solution to support chip-level EMC test based on TEM chambers

Sufficient Ports

- Two RF signal input ports, with RF input 2 for surge protection.
- Local oscillator output port and IF input port provided to expand the frequency test range
- Various general-purpose ports provided, such as USB, LAN, GPIB, DP, etc.

Technical Specification

<table>
<tr><td>Frequency range</td><td>
Input port 1:
<table>
<tr><th>Model</th><th>DC coupling</th><th>AC coupling</th></tr>
<tr><td>3916B</td><td>2Hz～8.4GHz</td><td>10MHz～8.4GHz</td></tr>
<tr><td>3916D</td><td>2Hz～18GHz</td><td>10MHz～18GHz</td></tr>
<tr><td>3916E</td><td>2Hz～26.5GHz</td><td>10MHz～26.5GHz</td></tr>
<tr><td>3916F</td><td>2Hz～45GHz</td><td>10MHz～45GHz</td></tr>
<tr><td>3916H</td><td>2Hz～50GHz</td><td>10MHz～50GHz</td></tr>
</table>
Input port 2:
2Hz-1GHz (DC coupling)
9kHz-1GHz (AC coupling)
</td></tr>
<tr><td>10MHz
Precision frequency reference</td><td>Frequency accuracy: ±(to last calibration date × aging rate + temperature stability + calibration accuracy)
Aging rate: ±3×10^{-8}/year
Temperature stability: ± 1×10^{-9}
Calibration accuracy: ± 5×10^{-9}</td></tr>
<tr><td>Frequency resolution</td><td>0.1Hz</td></tr>
<tr><td>Number of preselected channels</td><td>23 sections (with notch filter)</td></tr>
<tr><td>Frequency reading
Accuracy</td><td>± (frequency reading x frequency reference accuracy + 0.1% bandwidth + 5% resolution bandwidth + 2Hz + 0.5 horizontal resolution*)
*: Horizontal resolution = Span / (Number of sweep points - 1)</td></tr>
<tr><td>Marker counter</td><td>Accuracy: ±(Marker frequency x Frequency reference accuracy + 0.100 Hz)
Counter resolution: 0.001Hz</td></tr>
<tr><td>Dwell time</td><td>50μs-100s</td></tr>
<tr><td>sweep time</td><td>Range: Span≥ 10Hz 3μs～16000s
Span=0Hz: 1μs～16000s
Accuracy: Span = 0Hz: ±0.01%</td></tr>
<tr><td>Maximum sweep list
Number of partitions</td><td>20</td></tr>
<tr><td>Detector type</td><td>Maximum Peak, Minimum Peak, RMS, Quasi-Peak, Average, CISPR Average, and CISPR RMS</td></tr>
</table>

Phase noise **(carrier 1GHz, 20℃~ 30℃)**	＜-107dBc/Hz Frequency offset 100Hz ＜-125dBc/Hz Frequency offset 1kHz ＜-133dBc/Hz Frequency offset 10kHz ＜-135dBc/Hz Frequency offset 100kHz
Residual FM	≤ 0.25 Hz x N (10 Hz resolution bandwidth, 10 Hz video bandwidth, and rated value within 20 ms; for the specific value of N, refer to the number of harmonics in section "Band Division.") Frequency range — N value 2Hz＜f≤8.2GHz — 1; 8.2GHz＜f≤18GHz — 1; 18GHz＜f≤26.5GHz — 2; 26.5GHz＜f≤40GHz — 2; 40GHz＜f≤50GHz — 4;
EMI filter **(-6dB bandwidth)**	Range: 1Hz, 10Hz, 100Hz, 200Hz, 1kHz, 9kHz, 10kHz, 100kHz, 120kHz, 1MHz, 10MHz Accuracy: ≤ 5% Selectivity (-60 dB/-6 dB): ≤4.5:1
Standard filter (bandwidth of -3dB)	Range: 1Hz-3MHz (1, 2, 3 and 5 steps), 4, 5, 6, 8 and 10MHz Accuracy (3.01dB): ±3% (1Hz≤RBW≤1MHz) ±15% (1MHz<RBW≤10MHz) Selectivity (-60 dB/-3 dB): ＜5.0:1
VBW	1Hz - 20MHz (in steps of 1, 2, 3, and 5) (rated value)
Compression point of 1dB (two-tone test, priority for RF-gain dynamic range, and frequency interval greater than 5 times pre-filtering bandwidth)	Preselector OFF, preselector amplifier OFF, low-noise amplifier OFF: ≥5dBm 20MHz≤f＜3.25GHz ≥7dBm 3.25GHz≤f ≤50GHz
Third-order intermodulation distortion **Interception point** **(RF gain dynamic**	Preselector OFF, preselector amplifier OFF, low-noise amplifier OFF: ≥15dBm 10MHz≤f≤100MHz ≥18dBm 100MHz＜f≤3.25GHz ≥20dBm 3.25GHz＜f≤8.2GHz ≥18dBm 8.2GHz＜f≤50GHz

<table>
<tr><td>range priority)</td><td></td></tr>
<tr><td>Second harmonic distortion

Interception point</td><td>Preselector OFF, preselector amplifier OFF, low-noise amplifier OFF:
≥45dBm 10MHz≤f≤4.1GHz
≥60dBm 4.1GHz＜f≤13.25GHz
≥55dBm 13.25GHz＜f≤20GHz
≥45dBm 20GHz＜f≤25GHz</td></tr>
<tr><td>Display average noise level(Input port connected to 50 Ω load, with input attenuation of 0dB, and temperature range of +20 ～ +30° C,

normalized to 1Hz)</td><td>(Without low-noise preamplifier option 3916-H34-XX): preselector OFF, preamplifier OFF
<table>
<tr><th>Frequency range</th><th>Indicator</th></tr>
<tr><td>10MHz≤ f＜100MHz</td><td>≤-148dBm</td></tr>
<tr><td>100MHz≤f＜1.2GHz</td><td>≤-147dBm</td></tr>
<tr><td>1.2GHz≤f＜2.2GHz</td><td>≤-146dBm</td></tr>
<tr><td>2.2GHz≤f＜3.25GHz</td><td>≤-145dBm</td></tr>
<tr><td>3.25GHz≤f＜5.25GHz</td><td>≤-143dBm</td></tr>
<tr><td>5.25GHz≤f＜6.5GHz</td><td>≤-144dBm</td></tr>
<tr><td>6.5GHz≤f＜8.2GHz</td><td>≤-138dBm</td></tr>
<tr><td>8.2GHz≤f＜18GHz</td><td>≤-141dBm</td></tr>
<tr><td>18GHz≤f＜26.5GHz</td><td>≤-141dBm</td></tr>
<tr><td>26.5GHz≤f＜40GHz</td><td>≤-137dBm</td></tr>
<tr><td>40GHz≤f≤50GHz</td><td>≤-132dBm</td></tr>
</table>
(Without low-noise preamplifier option 3916-H34-XX): Preselector ON, preamplifier OFF
<table>
<tr><th>Frequency range</th><th>Indicator</th></tr>
<tr><td>10MHz≤ f＜100MHz</td><td>≤-150dBm</td></tr>
<tr><td>100MHz≤f＜1.2GHz</td><td>≤-153dBm</td></tr>
<tr><td>1.2GHz≤f＜2.2GHz</td><td>≤-153dBm</td></tr>
<tr><td>2.2GHz≤f＜3.25GHz</td><td>≤-152dBm</td></tr>
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(Without low-noise preamplifier option 3916-H34-XX): preselector ON, preselector amplifier ON
<table>
<tr><th>Frequency range</th><th>Indicator</th></tr>
<tr><td>10MHz≤ f＜100MHz</td><td>≤-151dBm</td></tr>
<tr><td>100MHz≤f＜1.2GHz</td><td>≤-155dBm</td></tr>
<tr><td>1.2GHz≤f＜2.2GHz</td><td>≤-155dBm</td></tr>
<tr><td>2.2GHz≤f＜3.25GHz</td><td>≤-154dBm</td></tr>
<tr><td>3.25GHz≤f＜5.25GHz</td><td>≤-153 dBm</td></tr>
<tr><td>5.25GHz≤f＜6.5GHz</td><td>≤-153 dBm</td></tr>
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6.5GHz≤f＜8.2GHz	≤-151dBm
8.2GHz≤f＜18GHz	≤-141dBm
18GHz≤f＜26.5GHz	≤-141dBm
26.5GHz≤f＜40GHz	≤-137dBm
40GHz≤f≤50GHz	≤-132dBm

(With low-noise preamplifier option 3916-H34-XX): preselector OFF, preselector amplifier OFF, low-noise amplifier OFF

Frequency range	**Indicator**
10MHz≤ f＜100MHz	≤-145dBm
100MHz≤f＜1.2GHz	≤-146dBm
1.2GHz≤f＜2.2GHz	≤-145dBm
2.2GHz≤f＜3.25GHz	≤-144dBm
3.25GHz≤f＜5.25GHz	≤-142dBm
5.25GHz≤f＜6.5GHz	≤-142dBm
6.5GHz≤f＜8.2GHz	≤-137dBm
8.2GHz≤f＜18GHz	≤-140dBm
18GHz≤f＜26.5GHz	≤-140dBm
26.5GHz≤f＜40GHz	≤-136dBm
40GHz≤f≤50GHz	≤-131dBm

(With low-noise preamplifier option 3916-H34-XX): preselector ON, preamplifier OFF, low-noise preamplifier OFF

Frequency range	**Indicator**
10MHz≤ f＜100MHz	≤-149dBm
100MHz≤f＜1.2GHz	≤-152dBm
1.2GHz≤f＜2.2GHz	≤-152dBm
2.2GHz≤f＜3.25GHz	≤-151dBm
3.25GHz≤f＜5.25GHz	≤-152dBm
5.25GHz≤f＜6.5GHz	≤-152dBm
6.5GHz≤f＜8.2GHz	≤-150dBm
8.2GHz≤f＜18GHz	≤-140dBm
18GHz≤f＜26.5GHz	≤-140dBm
26.5GHz≤f＜40GHz	≤-136dBm
40GHz≤f≤50GHz	≤-131dBm

(With low-noise preamplifier option 3916-H34-XX): preselector ON, preamplifier ON, low-noise amplifier OFF

Frequency range	**Indicator**
10MHz≤ f＜100MHz	≤-150dBm
100MHz≤f＜1.2GHz	≤-154dBm
1.2GHz≤f＜2.2GHz	≤-154dBm
2.2GHz≤f＜3.25GHz	≤-153dBm
3.25GHz≤f＜5.25GHz	≤-152dBm
5.25GHz≤f＜6.5GHz	≤-152dBm
6.5GHz≤f＜8.2GHz	≤-150dBm

8.2GHz≤f＜18GHz	≤-140dBm
18GHz≤f＜26.5GHz	≤-140dBm
26.5GHz≤f＜40GHz	≤-136dBm
40GHz≤f≤50GHz	≤-131dBm

(With low-noise preamplifier option 3916-H34-XX): preselector OFF, preamplifier OFF, low-noise amplifier ON

Frequency range	**Indicator**
10MHz≤ f＜100MHz	≤-155dBm
100MHz≤f＜1.2GHz	≤-160dBm
1.2GHz≤f＜2.2GHz	≤-159dBm
2.2GHz≤f＜3.25GHz	≤-159dBm
3.25GHz≤f＜5.25GHz	≤-158dBm
5.25GHz≤f＜6.5GHz	≤-156dBm
6.5GHz≤f＜8.2GHz	≤-156dBm
8.2GHz≤f＜18GHz	≤-156dBm
18GHz≤f＜26.5GHz	≤-154dBm
26.5GHz≤f＜40GHz	≤-153dBm
40GHz≤f≤50GHz	≤-148dBm

(With low-noise preamplifier option 3916-H34-XX): preselector ON, preamplifier OFF, low-noise amplifier ON

Frequency range	**Indicator**
10MHz≤ f＜100MHz	≤-156dBm
100MHz≤f＜1.2GHz	≤-157dBm
1.2GHz≤f＜2.2GHz	≤-157dBm
2.2GHz≤f＜3.25GHz	≤-157dBm
3.25GHz≤f＜5.25GHz	≤-157dBm
5.25GHz≤f＜6.5GHz	≤-157dBm
6.5GHz≤f＜8.2GHz	≤-156dBm
8.2GHz≤f＜18GHz	≤-155dBm
18GHz≤f＜26.5GHz	≤-155dBm
26.5GHz≤f＜40GHz	≤-152dBm
40GHz≤f≤50GHz	≤-148dBm

Residual response (attenuator=0dB)	≤-90dBm f ≤1MHz ≤-103dBm 1MHz ＜f ≤8.4GHz
Absolute amplitude Uncertainty (Internal calibration	≤0.2dB

signal frequency point 500MHz, +20～+30℃)

Frequency response

(Attenuation of 10dB,

(20° C to 30° C, relative to calibration frequency of 500MHz, DC coupling)

(Without low-noise preamplifier option 3916-H34-XX): preselector OFF, preamplifier OFF

Frequency range	Indicator
2Hz≤f＜9kHz	±1.0dB
9kHz≤f＜10MHz	±0.7dB
10MHz≤f＜3.6GHz	±0.5dB
3.6GHz≤f＜8GHz	±0.7dB
8GHz≤f＜22GHz	±1.5dB
22GHz≤f≤50GHz	±2.0dB

(Without low-noise preamplifier option 3916-H34-XX): Preselector ON, preamplifier OFF

Frequency range	Indicator
2Hz≤f＜9kHz	±1.3dB
9kHz≤f＜10MHz	±1.0dB
10MHz≤f＜3.6GHz	±0.8dB
3.6GHz≤f＜8GHz	±1.1dB
8GHz≤f＜22GHz	±1.5dB
22GHz≤f≤50GHz	±2.0dB

(Without low-noise preamplifier option 3916-H34-XX): preselector ON, preselector amplifier ON

Frequency range	Indicator
2Hz≤f＜9kHz	±1.7dB
9kHz≤f＜10MHz	±1.4dB
10MHz≤f＜3.6GHz	±1.2dB
3.6GHz≤f＜8GHz	±1.6dB
8GHz≤f＜22GHz	±2.0dB
22GHz≤f≤50GHz	±2.8dB

(With low-noise preamplifier option 3916-H34-XX): preselector OFF, preselector amplifier OFF, low-noise amplifier OFF

Frequency range	Indicator
2Hz≤f＜9kHz	±1.1dB
9kHz≤f＜10MHz	±0.8dB
10MHz≤f＜3.6GHz	±0.6dB
3.6GHz≤f＜8GHz	±0.8dB
8GHz≤f＜22GHz	±1.6dB
22GHz≤f≤50GHz	±2.1dB

(With low-noise preamplifier option 3916-H34-XX): preselector ON, preamplifier OFF, low-noise preamplifier OFF

Frequency range	Indicator
2Hz≤f＜9kHz	±1.4dB
9kHz≤f＜10MHz	±1.1dB

	10MHz≤f＜3.6GHz ±0.9dB 3.6GHz≤f＜8GHz ±1.2dB 8GHz≤f＜22GHz ±1.6dB 22GHz≤f≤50GHz ±2.1dB (With low-noise preamplifier option 3916-H34-XX): preselector ON, preamplifier ON, low-noise amplifier OFF **Frequency range** / **Indicator** 2Hz≤f＜9kHz ±1.8dB 9kHz≤f＜10MHz ±1.5dB 10MHz≤f＜3.6GHz ±1.3dB 3.6GHz≤f＜8GHz ±1.7dB 8GHz≤f＜22GHz ±1.6dB 22GHz≤f≤50GHz ±2.1dB (With low-noise preamplifier option 3916-H34-XX): preselector OFF, preamplifier OFF, low-noise amplifier ON **Frequency range** / **Indicator** 10MHz≤f＜3.6GHz ±1.0dB 3.6GHz≤f＜8GHz ±1.3dB 8GHz≤f＜22GHz ±2.0dB 22GHz≤f≤50GHz ±2.8dB (With low-noise preamplifier option 3916-H34-XX): preselector ON, preamplifier OFF, low-noise amplifier ON **Frequency range** / **Indicator** 10MHz≤f＜3.6GHz ±1.3dB 3.6GHz≤f＜8GHz ±1.7dB 8GHz≤f＜22GHz ±2.0dB 22GHz≤f≤50GHz ±2.8dB
Mirror suppression	≥80dBc
Maximum-input continuous wave signal level (Preselector OFF, preamplifier OFF, attenuator ≥ 20dB)	+30dBm
Input voltage standing wave ratio	**Frequency range** / **Indicator** 9kHz≤f≤1GHz ≤ 1.2

(Attenuator ≥ 10dB, DC coupling, port 1)	1GHz＜f≤8GHz	≤ 1.5	
	8GHz＜f≤45GHz	≤ 1.8	
	45GHz＜f≤50GHz	≤ 2.0	
Input attenuator range	0-70dB, 2dB step		
RF interface	**Port 1:** 3916B/D EMI test receiver: N-type female connector, 50Ω 3916E EMI test receiver: 3.5mm male connector, 50Ω 3916F/H EMI test receiver: 2.4mm male connector, 50Ω **Port 2:** N-type female connector, 50Ω		
Communication interface	USB interface: A-type, 3 on the front panel and 3 on the rear panel LAN interface:RJ45,10/100/1000M adaptive GPIB interface: IEEE-488 bus connector, 24-way plug (GP-IB code: SH1, AH1, T6, L4, SR1, RL1, PP0, DC1, or C0), used for remote control		
Audio Interface	Earphone interface: standard 3.5 mm. Video interface: DP interface		
Time base interface	1MHz-100MHz reference input: 50 Ω impedance, BNC female connector 10MHz reference output: 50 Ω impedance, BNC female connector 1GHz reference input: 50 Ω impedance, SMA female connector 100MHz/1GHz reference output: 50 Ω impedance, SMA female connector		
Trigger Interface	Trigger input 1: BNC female connector; Trigger input 2: BNC female connector; Trigger output 1: BNC female connector; Trigger output 2: BNC female connector.		
Overall dimensions	W (mm) x H (mm) x D (mm): (474.6±4)mm × (237.5±2.5)mm × (559.5±4)mm (including handles, retaining plates, and pads) (426±4)mm × (221.5±2.5)mm × (450±4)mm (excluding handles, retaining plates, and pads)		
Max. weight	Maximum 35kg (which varies with options)		
Power supply	AC 100～240V: 50～60Hz		
Power	Maximum power consumption 600W		

consumption	
Temperature range	Operating temperature: 0℃ to +50℃; Storage temperature range: -40° C~+70° C

Note: 1 The rated value refers to the expected performance, or describes the product performance that is useful for the product but not included in the product warranty.

Order Information

- **Instrument:**

Model	Name	Frequency range
3916B	EMI test receiver	2Hz～8.4GHz
3916D	EMI test receiver	2Hz～18GHz
3916E	EMI test receiver	2Hz～26.5GHz
3916F	EMI test receiver	2Hz～45GHz
3916H	EMI test receiver	2Hz～50GHz

- **Standard:**

No.	Name	Description
1	Power cord	Standard 3-core power cord
2	Quick Start	
3	Certificate of conformity	

- **Options**

Option No.	Name	Function
3916-H12C	BW digital interface	Real-time output of wideband IQ acquisition data via optical fiber, supporting IQ data output with a maximum bandwidth of 40MHz. In combination with the high-capacity data recorder (4712C data recorder), real-time large-capacity recording of IQ data can be achieved. (Note: Option 3916-H38-40 is required).
3916-H13	Precision frequency reference	Provide higher-precision frequency reference.

3916-H34-08	Low noise preamplifier	The preamplifier is selected according to the upper frequency limit of the EMI test receiver. For example, for 3916B preamplifier, please choose H34-08.
3916-H34-18	Low noise preamplifier	The preamplifier is selected according to the upper frequency limit of the EMI test receiver. For example, for 3916D preamplifier, please choose H34-18.
3916-H34-26	Low noise preamplifier	The preamplifier is selected according to the upper frequency limit of the EMI test receiver. For example, for 3916E preamplifier, please choose H34-26.
3916-H34-45	Low noise preamplifier	The preamplifier is selected according to the upper frequency limit of the selected EMI test receiver, for example, choose H34-45 for 3916F preamplifier.
3916-H34-50	Low noise preamplifier	The preamplifier is selected according to the upper frequency limit of the selected EMI test receiver, for example, choose H34-50 for 3916H preamplifier.
3916-H52	Fast time-domain sweep	Support fast FFT time-domain sweep of up to 29.8MHz (Note: Option 3916-H38-40 is required).
3916-H38-40	40MHz analysis bandwidth	Support analysis bandwidth of 10Hz to 40MHz. (Note: Options 3916-H52 and 3916-H38-40 are required.)
3916-H96	User's manual (hard copy)	It is used for providing detailed user manual of hardcopy version.
3916-H97	Rack mount kit	The racking handle and accessories are used to rack and install the 3916 series in the standard cabinets.
3916-H99	Aluminum alloy transportation case	High-strength lightweight aluminum alloy transport case is provided with handle and wheels for easy transportation.

- **Warranty and calibration service:**

Option No.	Name	Function
3916B-EWT1	An extended warranty beyond the standard warranty period is available for 1 year.	An extended warranty beyond the standard warranty period is available for 1 year. For a 2-year extension, 2 items can be selected, and so on. The service does not include calibration and covers only one-way shipping costs.
3916D-EWT1	An extended warranty beyond the standard warranty period is available for 1 year.	An extended warranty beyond the standard warranty period is available for 1 year. For a 2-year extension, 2 items can be selected, and so on. The service does not include calibration and covers only one-way shipping costs.
3916E-EWT1	An extended warranty beyond the standard warranty period is available for 1 year.	An extended warranty beyond the standard warranty period is available for 1 year. For a 2-year extension, 2 items can be selected, and so on. The service does not include calibration and covers only one-way shipping costs.
3916F-EWT1	An extended warranty beyond the standard warranty period is available for 1 year.	An extended warranty beyond the standard warranty period is available for 1 year. For a 2-year extension, 2 items can be selected, and so on. The service does not include calibration and covers only one-way shipping costs.
3916H-EWT1	An extended warranty beyond the standard warranty period is available for 1 year.	An extended warranty beyond the standard warranty period is available for 1 year. For a 2-year extension, 2 items can be selected, and so on. The service does not include calibration and covers only one-way shipping costs.
3916B-JL	Measurement service	Measurement and calibration services and measurement reports are provided
3916D-JL	Measurement service	Measurement and calibration services and measurement reports are provided
3916E-JL	Measurement service	Measurement and calibration services and measurement reports are provided
3916F-JL	Measurement service	Measurement and calibration services and measurement reports are provided

3916H-JL	Measurement service	Measurement and calibration services and measurement reports are provided