



# FMT800 SERIES

VECTOR NETWORK ANALYZER/MULTI-PORT TESTER



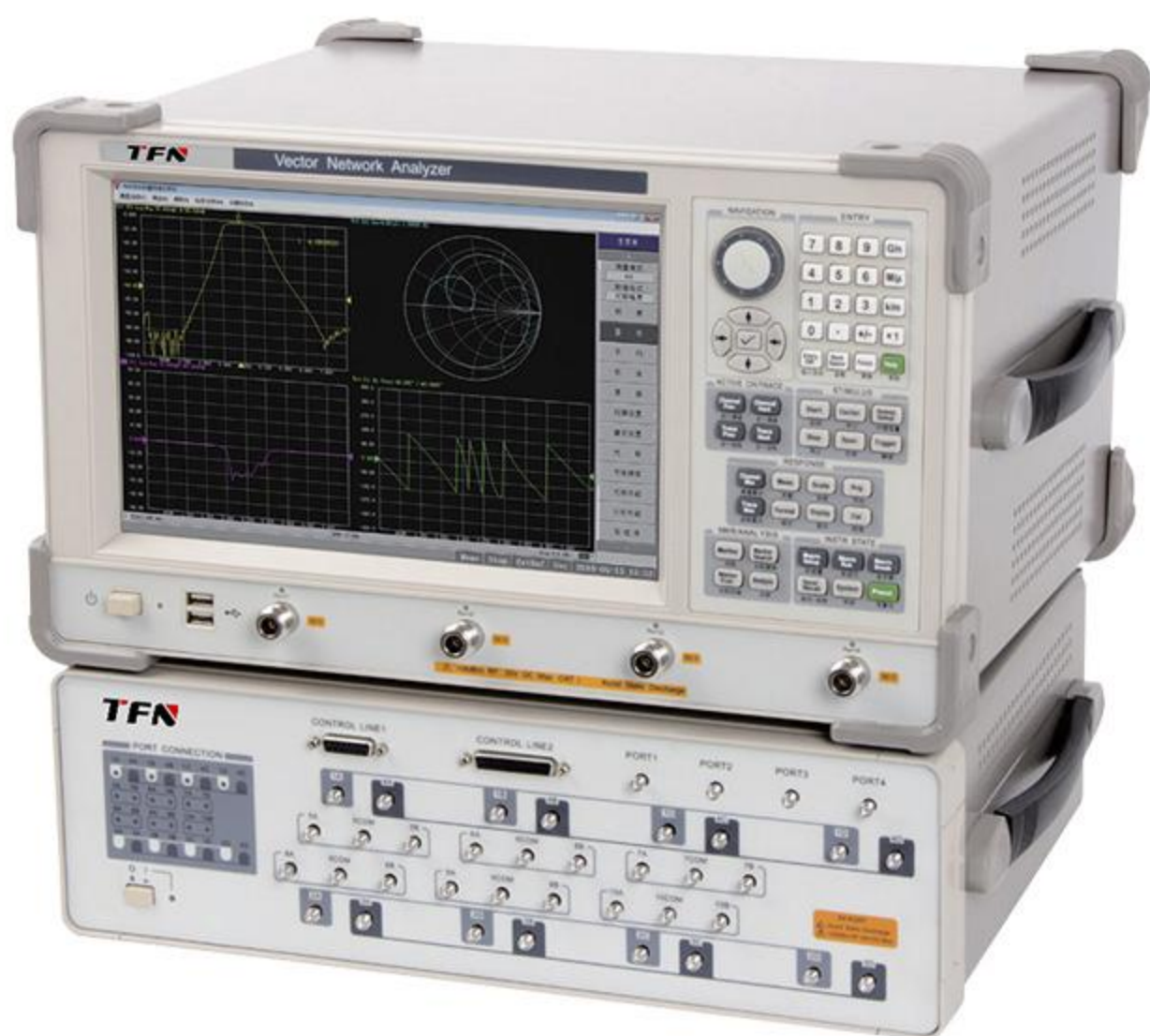
**01 FMT832A 100kHz ~ 3GHz 50Ω 2-Port** (VECTOR NETWORK ANALYZER)

**02 FMT832B 100kHz ~ 3GHz 75Ω 2-Port** (VECTOR NETWORK ANALYZER)

- 03 FMT834A 100kHz ~ 3GHz 50Ω 4-Port** (VECTOR NETWORK ANALYZER)
- 04 FMT834B 100kHz ~ 3GHz 75Ω 4-Port** (VECTOR NETWORK ANALYZER)
- 05 FMT835B 100kHz ~ 3.5GHz 75Ω 2-Port** (VECTOR NETWORK ANALYZER)
- 06 FMT842A 100kHz ~ 4.5GHz 50Ω 2-Port** (VECTOR NETWORK ANALYZER)
- 07 FMT844A 100kHz ~ 4.5GHz 50Ω 4-Port** (VECTOR NETWORK ANALYZER)
- 08 FMT862A 100kHz ~ 6GHz 50Ω 2-Port** (VECTOR NETWORK ANALYZER)
- 09 FMT864A 100kHz ~ 6GHz 50Ω 4-Port** (VECTOR NETWORK ANALYZER)
- 10 FMT882A 100kHz ~ 8.5GHz 50Ω 2-Port** (VECTOR NETWORK ANALYZER)
- 11 FMT884A 100kHz ~ 8.5GHz 50Ω 4-Port** (VECTOR NETWORK ANALYZER)

# PRODUCT INTRODUCTION

FMT800 SERIES VECTOR NETWORK ANALYZER, DRAWING A LOT OF FEEDBACK FROM PREVIOUS GENERATIONS OF NETWORK ANALYZER APPLICATION CUSTOMERS, COMBINED WITH THE LATEST INTERNATIONAL INSTRUMENT DEVELOPMENT TECHNOLOGY AND SITUATION, IS THE LATEST FOURTH GENERATION VECTOR NETWORK ANALYZER LAUNCHED BY TFN INSTRUMENT. THE MULTI-PORT TESTER NEWLY DEVELOPED BY TFN CAN BE USED TOGETHER WITH VECTOR NETWORK ANALYZER, WHICH CAN EFFECTIVELY IMPROVE THE TESTING EFFICIENCY OF MANUFACTURING ENTERPRISES AND SAVE TIME AND COST. FREQUENCY RANGE FROM 100KHZ TO 3GHZ, 3.5GHZ, 4.5GHZ, THE 6GHZ AND 8.5GHZ FREQUENCY BANDS PROVIDE EFFICIENT AND FLEXIBLE TESTING MEANS FOR THE R&D AND PRODUCTION OF RF DEVICES AND COMPONENTS IN WIRELESS COMMUNICATION, RADIO AND TELEVISION, AUTOMOTIVE ELECTRONICS, SEMICONDUCTOR AND MEDICAL DEVICES AND OTHER INDUSTRIES. THEY HAVE ENTERED THE FIELDS OF CIVIL PRODUCTS, INDUSTRY, SCIENTIFIC RESEARCH AND EDUCATION AND MILITARY INDUSTRY.



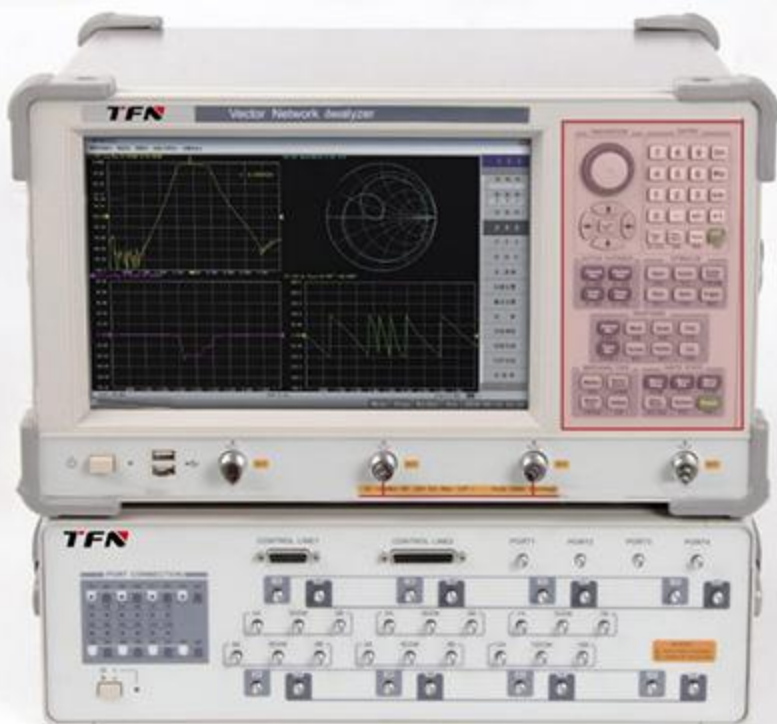
# PRODUCT INTRODUCTION

- 12.1-INCH 1280\*800 TFT TOUCH SCREEN
- VERY WIDE FREQUENCY COVERAGE RANGE: 100 KHZ TO 8.5 GHZ
- VERY WIDE DYNAMIC RANGE: > 125 DB
- VERY LOW TRACE NOISE: <0.005 DBRMS (AT 3 KHZ IFBW)
- FAST MEASUREMENT SPEED: 80USEC/ POIN
- ACCURATE ERROR CORRECTION AND CALIBRATION FUNCTION
- SYSTEM INTERCONNECTION THROUGH USB, LAN, AND GPIB INTER-FACES CAN BE UPGRADED AT ANY TIME TO IMPROVE PERFORMANCE OR ADD NEW FUNCTIONS
- COMBINED WITH INTELLIGENT PIPELINE BODY, IT CAN REALIZE AUTOMATIC MASS PRODUCTION TEST OF FACTORY

# FIELD PRACTICABILITY

THE FMT800 SERIES FEATURES A BRILLIANT 12.1-INCH COLOR TOUCH SCREEN WITH 1280 BY 800 RESOLUTION, ENABLING USERS TO DISPLAY A VARIETY OF DIALOG BOXES, MEASUREMENT CHANNELS AND TRACES IN THE SAME PICTURE. YOU CAN DRAG AND DROP CHANNELS, TRACE LINES, AND CURSORS ON THE SCREEN BY USING A TOUCH SCREEN OR MOUSE, AND EDIT THE NAMES OF MEASUREMENT CHANNELS AND TRACE LINES TO FACILITATE ARCHIVING MEASUREMENT RESULTS.

FMT800 SERIES CAN USE MULTIPLE PARAMETER CONFIGURATION FILES. USERS ONLY NEED TO TOUCH OR CLICK THE CONFIGURATION FILE TO SWITCH THE REQUIRED CONFIGURATION TO THE FOREGROUND FOR RELATED MEASUREMENT. USING THIS FUNCTION CAN GREATLY IMPROVE THE TEST EFFICIENCY.



# HELP INFORMATION

INSTRUMENT BUILT-IN HELP FILE, YOU CAN PRESS THE FRONT PANEL 【HELP】 KEY AT ANY TIME, FIND THE RELEVANT HELP INFORMATION. GREATLY CONVENIENT FOR YOU TO QUICKLY MASTER THE BASIC OPERATION SKILLS OF THE INSTRUMENT.

The screenshot displays the NA7600 instrument's built-in help system. The main window shows a PDF document titled "NA7600\_Help\_Chn.pdf" with the following content:

### 3. 设置测量条件

#### 3.1 设置初始化参数 Preset

操作该功能使仪器恢复为出厂预设状态。

操作步骤：

1. 按功能按钮恢复出厂设置或前面板快捷键 **Preset**。
2. 单击功能按钮 **Ok**。

#### 3.2 设置系统特性阻抗 System Z0

操作步骤：

1. 按功能按钮 Calibration 或前面板快捷键 **Cal**。
2. 单击功能按钮特征阻抗。
3. 按 **↑**、**↓** 键选择阻抗值，或直接键入阻抗值。
4. 按 **Enter** 键确认。

#### 3.3 设置通道和迹线

允许您最多使用 16 个通道。在 16 种不同的激励条件下进行测量。每个通道最多可以显示 16 条迹线（测量参数）。因为每个通道可以显示多条迹线，所以未提供连接各通道间激励条件的功能。每个通道总是相互独立的。

##### 3.3.1 通道数量和显示窗口布局设置

The interface also shows a sidebar on the right with system settings (系统设置) such as "开始打印" (Start Print), "打印设置..." (Print Settings...), "反色图片" (Invert Image), "保存截屏..." (Save Screenshot...), "混合设置" (Mix Settings), "背光设置 100%" (Backlight Settings 100%), "关闭显示" (Close Display), "版本信息" (Version Information), "服务菜单" (Service Menu), "软 键 盘" (Soft Keys), and "帮助文档" (Help Documents).

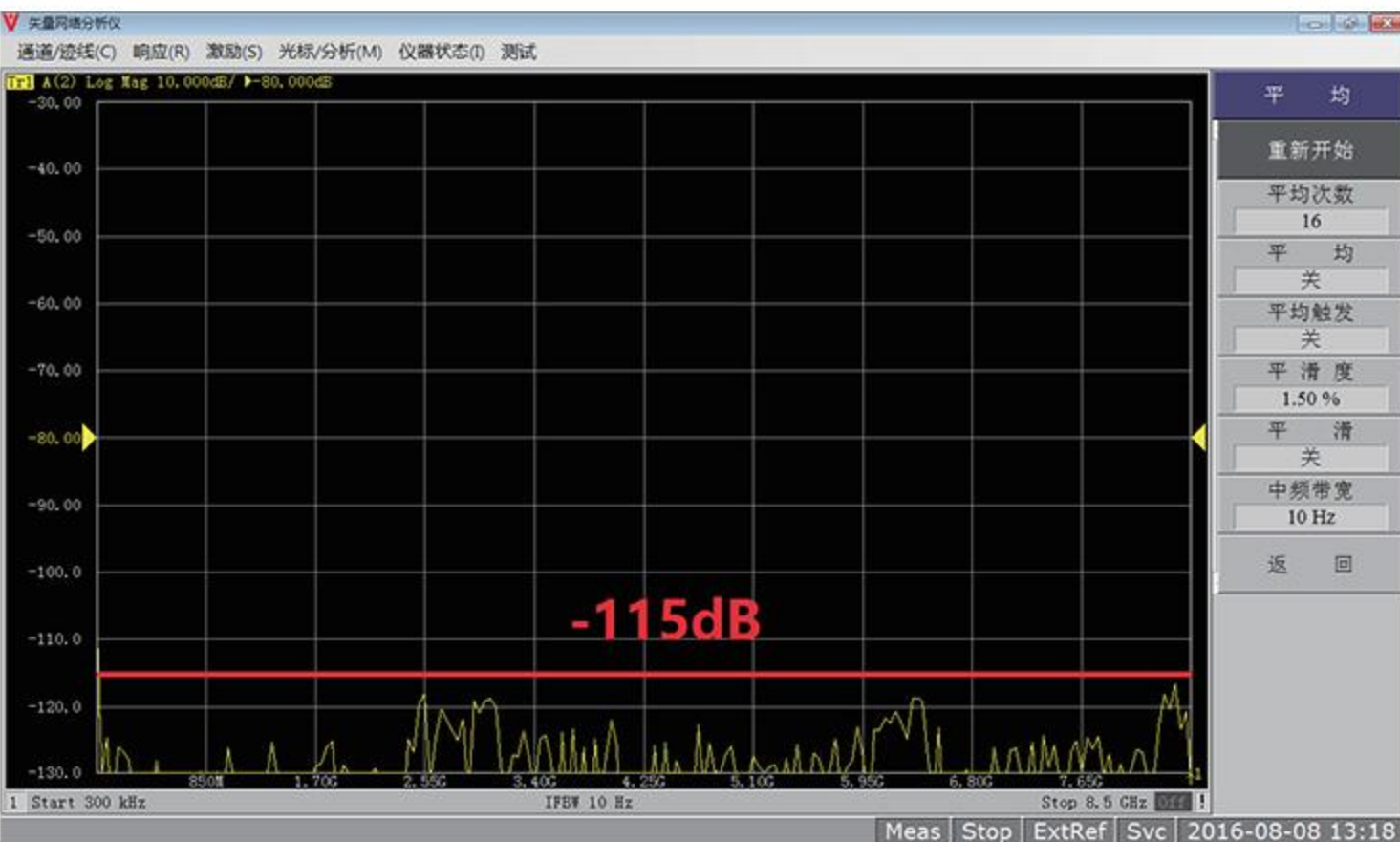
The bottom status bar displays measurement parameters: "Start 100 kHz", "IFBW 10 kHz", "Stop 8.5 GHz", and a timestamp "2016-10-08 13:59".

# FUNCTION AND PERFORMANCE OF THE INTERNATIONAL FIRST-CLASS BRAND COMPARISON

THE FOURTH GENERATION VECTOR NETWORK ANALYZER NEWLY LAUNCHED BY TFN HAS ABSORBED A LARGE NUMBER OF CUSTOMER FEEDBACK FROM PREVIOUS GENERATIONS OF NETWORK ANALYZER APPLICATIONS, COMBINED WITH THE TECHNICAL LEVEL OF THE DEVELOPMENT OF CUTTING-EDGE INTERNATIONAL INSTRUMENTS, SO THAT THIS PRODUCT HAS THE CONDITIONS TO COMPETE ON THE SAME STAGE WITH WORLD-CLASS BRANDS IN TERMS OF FUNCTION AND PERFORMANCE.

## WIDE DYNAMIC RANGE

>THE DYNAMIC RANGE OF 125DB PROVIDES MORE ACCURATE MEASUREMENTS FOR HIGH SUPPRESSION THAN FILTERS. ALSO IN ODBM OUTPUT, RBW=10HZ, NA7682A NOISE BASE LEVEL < -115DB (TYPICAL VALUE<-120DB), THE WORLD FAMOUS PRODUCT NOISE BASE LEVEL <-108DB.



IF Bandwidth 10 Hz

▶ Tr1 S21 Log Mag 10.00dB/ Ref -80.00dB



Average

Averaging  
RestartAvg Factor  
16Averaging  
OFFAvg Trigger  
OFFSmo Aperture  
1.5000 %Smoothing  
OFFIF Bandwidth  
10 Hz

Return

Meas

Stop

ExtRef

Ready

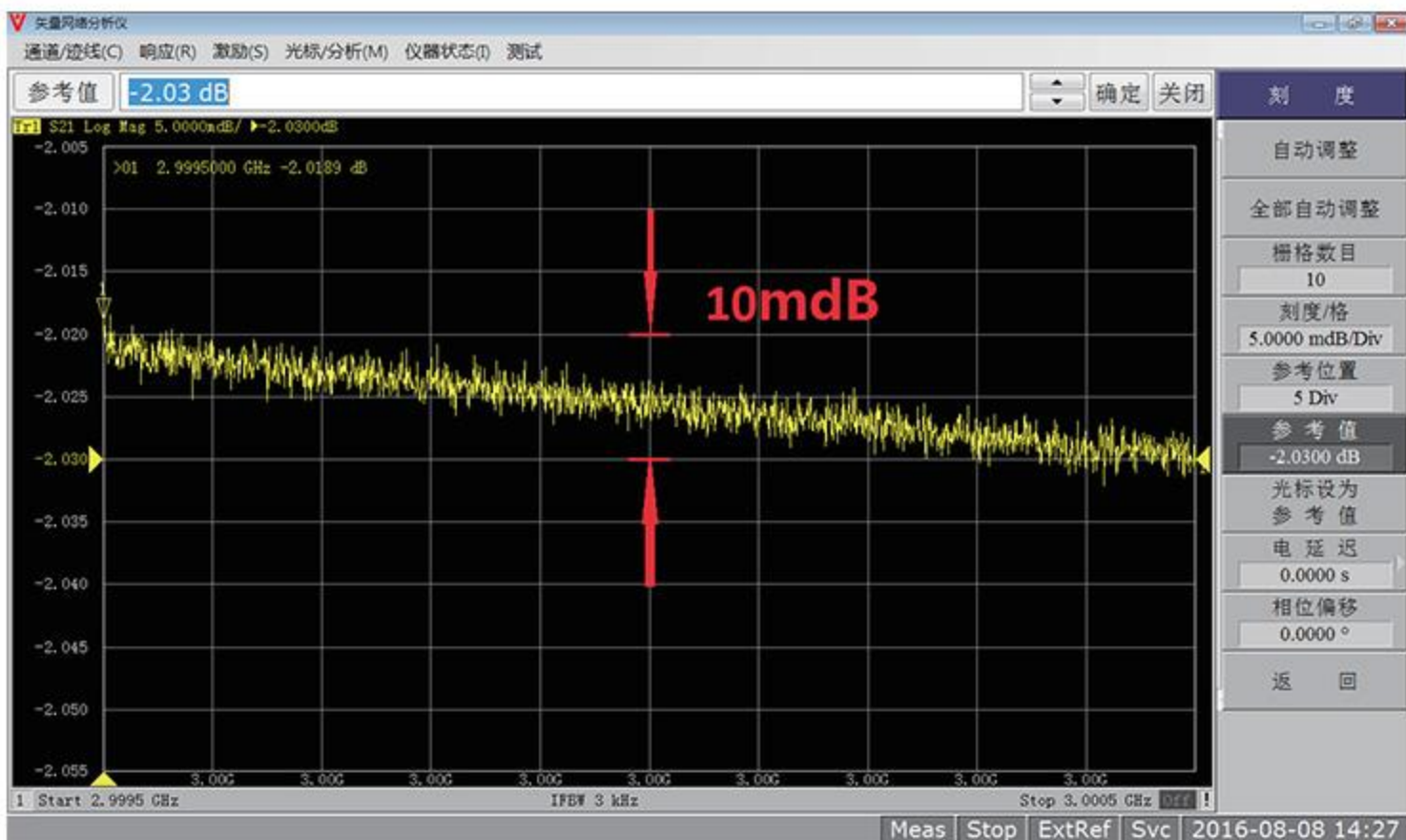
Svc

2016-10-08 16:29

INTERNATIONALLY FAMOUS BRAND

# LOW TRACK NOISE

UNDER THE CONDITION OF RBW=3KHZ, THE NOISE OF NA76XX IS LESS THAN 0.005DBRMS, AND THE NOISE OF NA76XX IS COMPARABLE TO THAT OF INTERNATIONALLY FAMOUS PRODUCTS. THIS HELPS TO REDUCE ERRORS WHEN MEASURING HIGH Q, LOW INSERTION LOSS DEVICES.

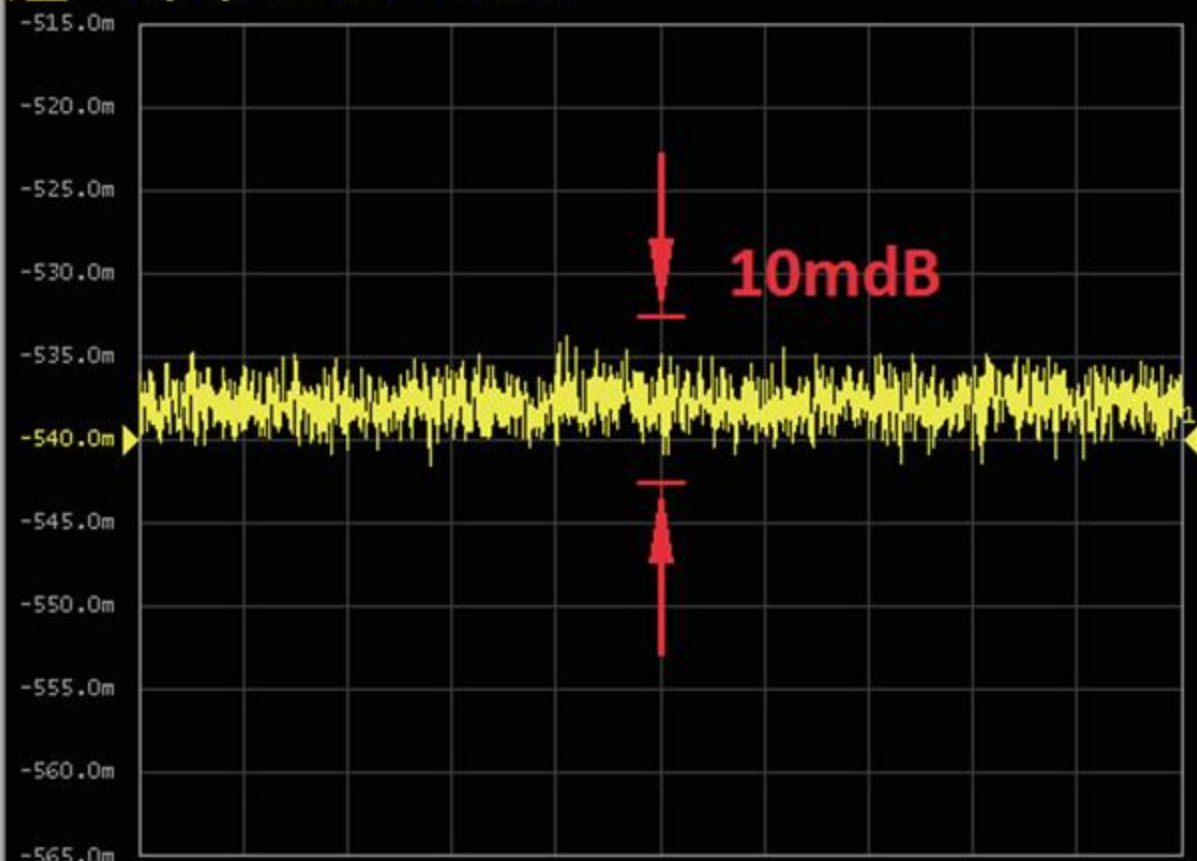


FMT800

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Reference Value -540 mdB

► S21 Log Mag 5.000mdB/ Ref -540.0mdB



Scale

Auto Scale

Auto Scale All

Divisions

10

Scale/Div

0.0050 dB/div

Reference Position

5 Div

Reference Value

-0.5400 dB

Marker ->

Reference

Electrical Delay

0.0000 s

Phase Offset

0.0000 °

Return

1 Center 3 GHz

IFBW 3 kHz

Span 1 MHz

Off

Meas

Stop

ExtRef

Ready

Svc

2016-08-08 14:26

INTERNATIONALLY FAMOUS BRAND

## HIGH STABILITY

THE TEST DEVICE AND RECEIVER OF THE FMT800 HAVE EXCELLENT TEMPERATURE STABILITY AND NO NEED TO RECALIBRATE WITHIN A FEW DAYS AFTER LONG-TERM CALIBRATION, STILL ENSURING THE ACCURACY OF THE MEASUREMENT. STABILITY. THE ANALYZER HAS VERY LOW AMPLITUDE AND PHASE DRIFT WHEN MEASURING S PARAMETER.

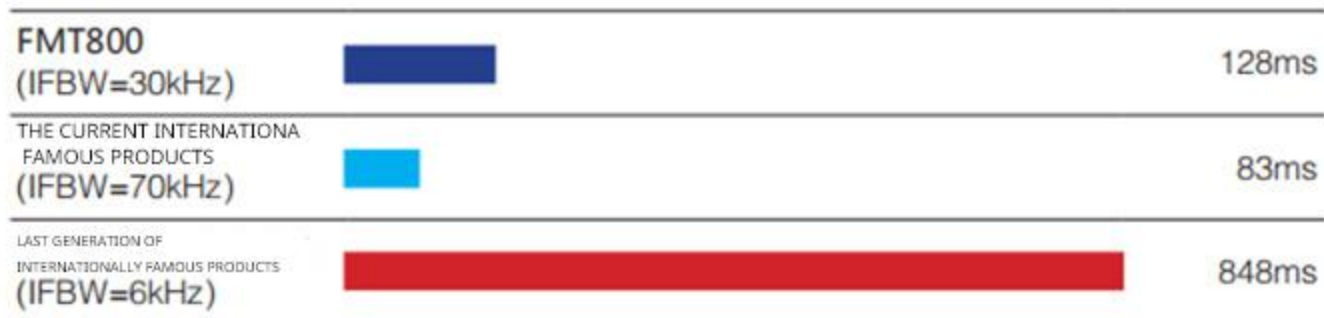
THE LONG-TERM TEMPERATURE STABILITY OF FMT800 IS CLOSE TO THAT OF CURRENT INTERNATIONALLY RENOWNED BRANDS, WHICH MEANS YOU CAN FULLY RELY ON THE ACCURACY OF YOUR MEASUREMENT RESULTS.



STABILITY VARIES WITH TEMPERATURE

## RAPID MEASUREMENT

THE FASTER MEASUREMENT SPEED OF THE FMT800 CAN HELP INCREASE PRODUCTION AND REDUCE THE AVERAGE COST PER COMPONENT. MEASUREMENT RESULTS.



MEASUREMENT SPEED COMPARISON (1601 POINTS,  
FULL 2-PORT CALIBRATION, CENTER=4GHZ, SPAN=200MHZ)

# INTELLIGENT PRODUCTION TESTING OF RF DEVICES

## POWERFUL ANALYSIS FUNCTION

### 1.TIME DOMAIN ANALYSIS (OPTIONAL)

TIME DOMAIN TRANSMISSION AND REFLECTION CHARACTERISTICS ANALYSIS; DISTANCE FAULT LOCATION.

### 2.DATA TRANSFORMATION

IT INVOLVES A VARIETY OF IMPEDANCE AND ADMITTANCE TRANSFORMATIONS.

### 3.FILTER ANALYSIS

AUTOMATIC ANALYSIS: INTERPOLATION LOSS, 3DB BANDWIDTH, 6DB BANDWIDTH, IN-BAND RIPPLE, OUT-OF-BAND SUPPRESSION, Q VALUE, RECTANGLE COEFFICIENT AND OTHER PARAMETERS.

### 4.QUALIFICATION LIMIT TEST

THE UPPER AND LOWER LIMITS ARE SET FOR THE TESTED TECHNICAL INDICATORS, WHICH WILL BE ANALYZED AUTOMATICALLY DURING THE TEST. THE PARTS EXCEEDING THE LIMITS WILL BE REGARDED AS UNQUALIFIED AND DISPLAYED AS "FAIL".

### 5.CURSOR POINT ANALYSIS

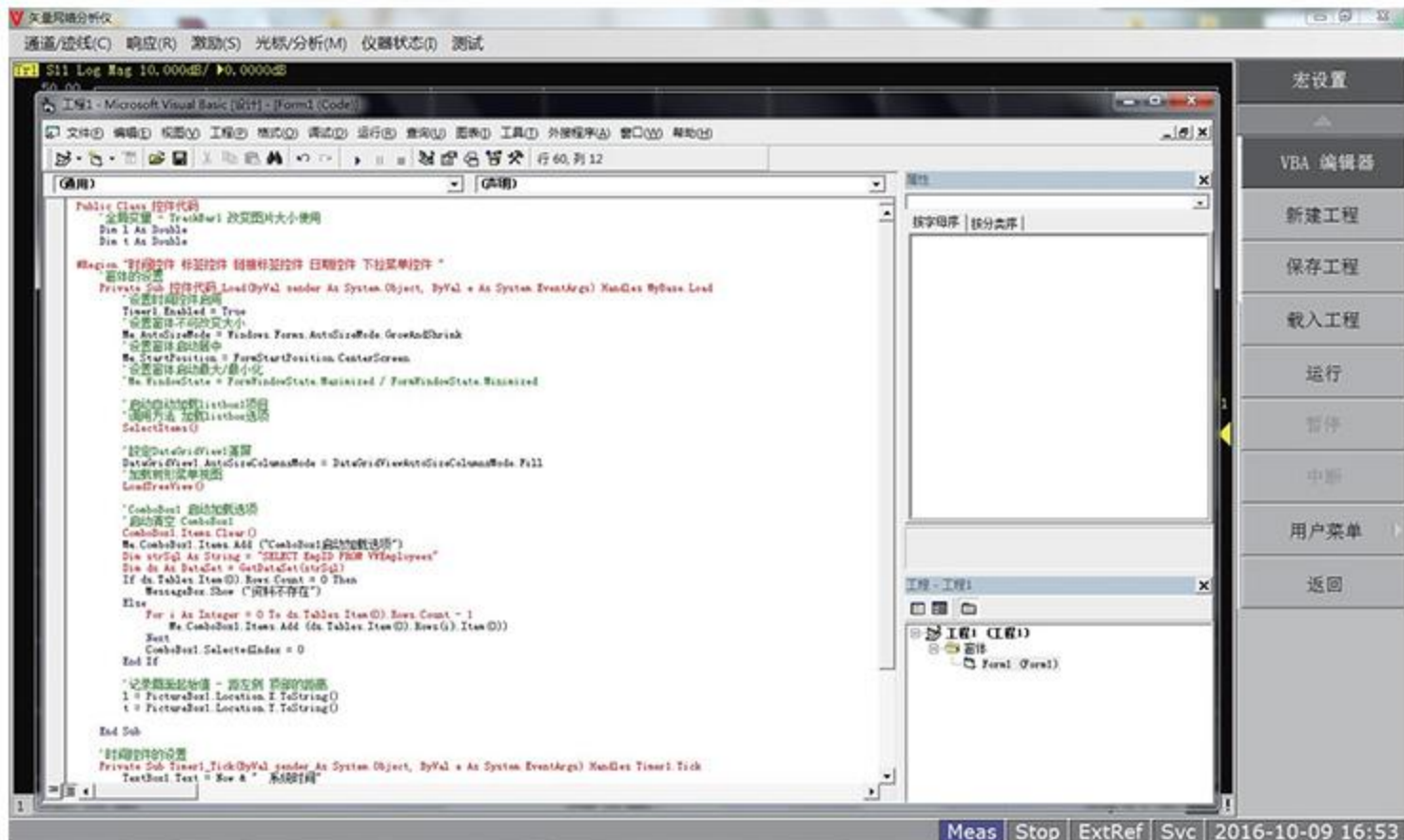
SCROLL, DRAG AND DROP CURSOR POINTS, OR AUTOMATICALLY SEARCH DATA. UP TO 16 CURSOR POINTS ARE SUPPORTED PER TRACE.

## FOR AUTOMATIC TESTING OF SIMPLEX

6ACCORDING TO THE FACTORY TECHNICAL STANDARDS OF THE MANUFACTURED DEVICES, SET THE QUALIFIED RANGE OF TEST INDICATORS, AND THE INSTRUMENT WILL AUTOMATICALLY GIVE THE TEST RESULT OF "PASS"/" FAIL"



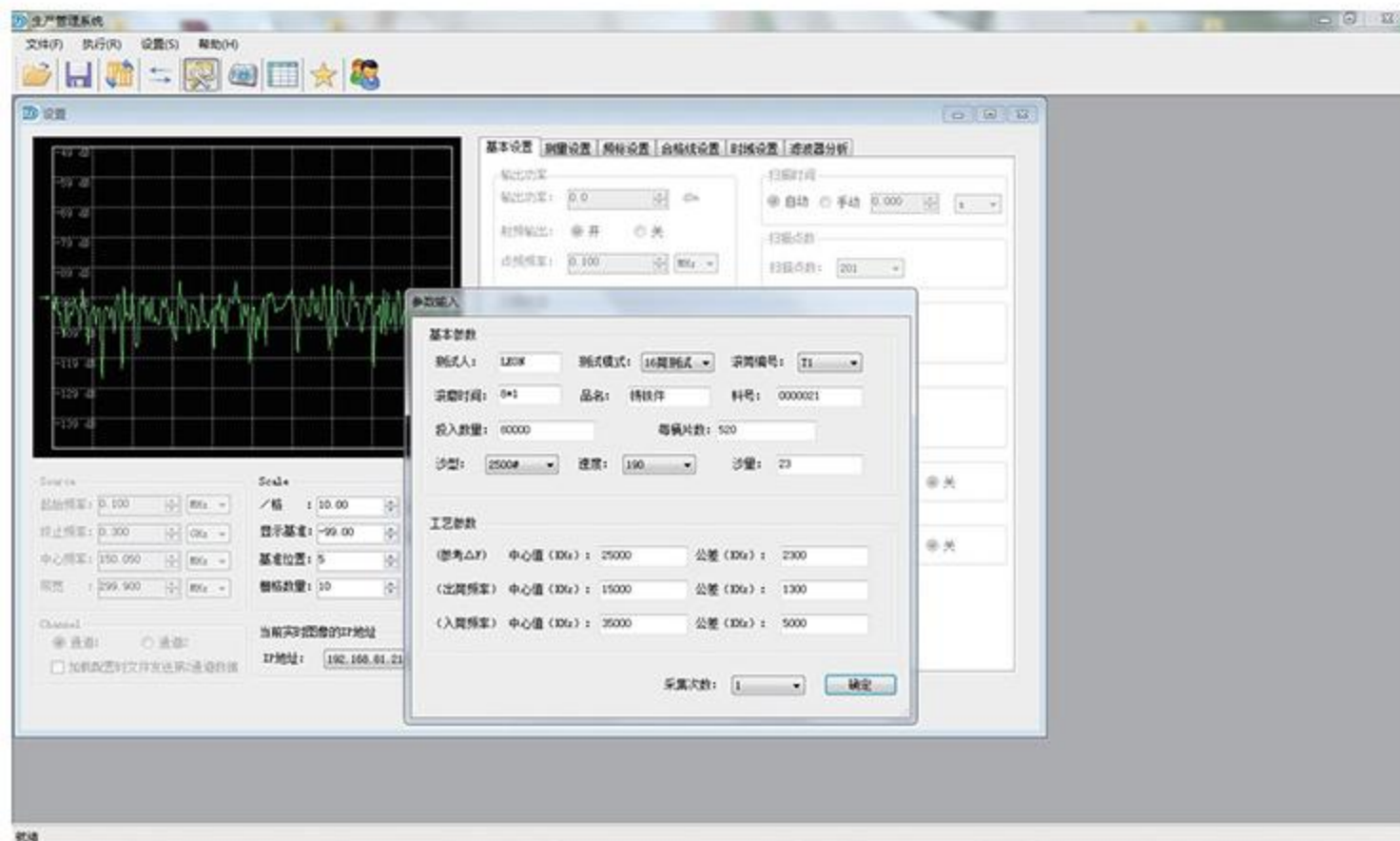
# EASY TO USE BUILT-IN VBA PROGRAMMING ENVIRONMENT, THE REALIZATION OF DEVICE AND TEST FIXTURE CONTROL AND TEST DATA ANALYSIS



# USED FOR AUTOMATIC TESTING OF MULTIPLE STATIONS IN PIPELINE

THE SERVER OF VNA WORKBENCH MANAGEMENT SOFTWARE UNIFORMLY SETS THE TYPE, RANGE, QUALIFICATION LIMIT AND OTHER TEST PARAMETERS OF EACH STATION OF THE CURRENT PRODUCTION BATCH THROUGH LAN, AND ESTABLISHES A DATABASE FOR THE TEST DATA, WHICH CAN BE QUERIED AND ANALYZED, AND CARRIES OUT STATISTICAL ANALYSIS ON THE CURRENT PRODUCTION BATCH TO OBTAIN PRODUCTION QUALITY RESULTS.





# TECHNICAL INDEX

## MAIN TECHNICAL PARAMETERS

| 系统性能   |                        |                          |
|--------|------------------------|--------------------------|
| 系统动态范围 | IFBW=3kHz              | -90dB ( <300kHz )        |
|        |                        | -105dB ( 0.3MHz 到 6GHz ) |
|        |                        | -108dB ( 6GHz 到 8.5GHz ) |
|        | IFBW=10Hz              | -100dB ( <300kHz )       |
|        |                        | -125dB ( 0.3MHz 到 6GHz ) |
|        |                        | -120dB ( 6GHz 到 8.5GHz ) |
| 定向性    |                        | 46dB ( <3GHz )           |
|        |                        | 42dB ( 3GHz 到 6GHz )     |
|        |                        | 38dB ( 6GHz 到 8.5GHz )   |
| 源匹配    |                        | 40dB ( <3GHz )           |
|        |                        | 36dB ( 3GHz 到 6GHz )     |
|        |                        | 35dB ( 6GHz 到 8.5GHz )   |
| 负载匹配   |                        | 46dB ( <3GHz )           |
|        |                        | 40dB ( 3GHz 到 6GHz )     |
|        |                        | 36dB ( 6GHz 到 8.5GHz )   |
| 反射跟踪   |                        | 0.03 dB ( <3GHz )        |
|        |                        | 0.04 dB ( 3GHz 到 6GHz )  |
|        |                        | 0.06dB ( 6GHz 到 8.5GHz ) |
| 传输跟踪   |                        | 0.03dB ( <3GHz )         |
|        |                        | 0.06dB ( 3GHz 到 6GHz )   |
|        |                        | 0.10dB ( 6GHz 到 8.5GHz ) |
| 测量点数   | 2 到 10001              |                          |
| 扫描速度   | 80us/点 ( RBW = 30kHz ) |                          |

| 测试端口输入 |       |                                                                                                                                                                                               |
|--------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 动态精度   | 幅度    | $\pm 0.25$ dB ( 10 dBm )                                                                                                                                                                      |
|        |       | $\pm 0.1$ dB ( -30 dBm )                                                                                                                                                                      |
|        |       | $\pm 2.0$ dB ( -90 dBm )                                                                                                                                                                      |
|        | 相位    | $\pm 5^{\circ}$ ( 10 dBm )                                                                                                                                                                    |
|        |       | $\pm 0.5^{\circ}$ ( -30 dBm )                                                                                                                                                                 |
|        |       | $\pm 15^{\circ}$ ( -90 dBm )                                                                                                                                                                  |
| 一般性指标  |       |                                                                                                                                                                                               |
| 中频带宽   |       | 1, 1.5, 2, 3, 4, 5, 7,<br>10, 15, 20, 30, 40, 50, 70,<br>100, 150, 200, 300, 400, 500, 700,<br>1kHz, 1.5kHz, 2kHz, 3kHz, 4kHz, 5kHz, 7kHz,<br>10kHz, 15kHz, 20kHz, 30kHz, 40kHz, 50kHz, 70kHz |
| 前面板    | 显示    | 12.1英寸TFT彩色LCD, 1280*800分辨率, 触摸屏                                                                                                                                                              |
|        | RF端口  | N (阴) 型, 50 $\Omega$                                                                                                                                                                          |
|        | USB接口 | USB2.0 , Type A, 2个                                                                                                                                                                           |
|        | 外触发输入 | 接口类型: BNC (阴)<br>输入电平: LOW门限电压0.5V, HIGH门限电压2.1V.<br>输入电平范围: 0到5V<br>脉宽: >2 $\mu$ s<br>极性: 正或负                                                                                                |
|        | 外参考输入 | 接口类型: BNC (阴)<br>输入频率: 10MHz $\pm$ 10ppm<br>输入电平: -3到+10dBm                                                                                                                                   |

| 测试端口输出                   |                                                                                                             |                                                                                        |                         |                         |                               |                               |                               |                         |                         |                               |                               |
|--------------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-------------------------|-------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------|-------------------------|-------------------------------|-------------------------------|
| 机型                       | NA7<br>632<br>A                                                                                             | NA7<br>632<br>B                                                                        | NA7<br>634<br>A         | NA7<br>634<br>B         | NA7<br>635<br>B               | NA7<br>642<br>A               | NA7<br>644<br>A               | NA7<br>662<br>A         | NA7<br>664<br>A         | NA7<br>682<br>A               | NA7<br>684<br>A               |
| 频率范围                     | 100<br>kHz<br>~3G<br>Hz                                                                                     | 100<br>kHz<br>~3G<br>Hz                                                                | 100<br>kHz<br>~3G<br>Hz | 100<br>kHz<br>~3G<br>Hz | 100<br>kHz<br>~3.<br>5GH<br>z | 100<br>kHz<br>~4.<br>5GH<br>z | 100<br>kHz<br>~4.<br>5GH<br>z | 100<br>kHz<br>~6G<br>Hz | 100<br>kHz<br>~6G<br>Hz | 100<br>kHz<br>~8.<br>5GH<br>z | 100<br>kHz<br>~8.<br>5GH<br>z |
| 频率分辨率                    | 1Hz                                                                                                         |                                                                                        |                         |                         |                               |                               |                               |                         |                         |                               |                               |
| 频率准确度                    | ± 2ppm ( 5℃~40℃ )                                                                                           |                                                                                        |                         |                         |                               |                               |                               |                         |                         |                               |                               |
| 相噪@10kHz                 | -85dBc/Hz ( 100kHz 到 3GHz )<br>-82dBc/Hz ( 3GHz 到 8.5GHz )                                                  |                                                                                        |                         |                         |                               |                               |                               |                         |                         |                               |                               |
| 谐波抑制(+5dBm输出)            | -25dBc ( < 5MHz ) , -30dBc ( ≥5MHz )                                                                        |                                                                                        |                         |                         |                               |                               |                               |                         |                         |                               |                               |
| 电平精度                     | ±1dB (Typical) , ±1.5dB (Maximum)                                                                           |                                                                                        |                         |                         |                               |                               |                               |                         |                         |                               |                               |
| 电平范围                     | -55dBm 到 +10dBm ( 100kHz 到 4.5GHz )<br>-55dBm 到 +8dBm ( 4.5GHz 到 6GHz )<br>-55dBm 到 +6dBm ( 6GHz 到 8.5GHz ) |                                                                                        |                         |                         |                               |                               |                               |                         |                         |                               |                               |
| 输出电平分辨率                  | 0.05dB                                                                                                      |                                                                                        |                         |                         |                               |                               |                               |                         |                         |                               |                               |
| 测试端口输入                   |                                                                                                             |                                                                                        |                         |                         |                               |                               |                               |                         |                         |                               |                               |
| 测试端口输入                   | +10dBm ( 100kHz 到 4.5GHz )<br>+13dBm ( 4.5GHz 到 6GHz )<br>+13dBm ( 6GHz 到 8.5GHz )                          |                                                                                        |                         |                         |                               |                               |                               |                         |                         |                               |                               |
| 损坏电平                     | +26dBm, ± 35VDC                                                                                             |                                                                                        |                         |                         |                               |                               |                               |                         |                         |                               |                               |
| 噪声电<br>平                 | RBW=3kHz                                                                                                    | -80dBm ( <300kHz )<br>-95dBm ( 0.3MHz 到 6GHz )<br>-92dBm ( 6GHz 到 8.5GHz )             |                         |                         |                               |                               |                               |                         |                         |                               |                               |
|                          | RBW=10Hz                                                                                                    | -90dB ( <300kHz )<br>-115dB ( 0.3MHz 到 6GHz )<br>-113dB ( 6GHz 到 8.5GHz )              |                         |                         |                               |                               |                               |                         |                         |                               |                               |
| 边线<br>噪声<br>(0dBm<br>输入) | 幅度<br>RBW=3kHz                                                                                              | 8mBrms ( <300kHz )<br>5mBrms ( 0.3MHz 到 6GHz )<br>6mBrms ( 6GHz 到 8.5GHz )             |                         |                         |                               |                               |                               |                         |                         |                               |                               |
|                          | 相位<br>RBW=3kHz                                                                                              | 0.060° rms ( <300kHz )<br>0.040° rms ( 0.3MHz 到 6GHz )<br>0.045° rms ( 6GHz 到 8.5GHz ) |                         |                         |                               |                               |                               |                         |                         |                               |                               |
| 稳定性                      | 幅度                                                                                                          | ± 0.005dB/℃ ( < 3GHz )<br>± 0.01dB/℃ ( 3GHz 到 6GHz )<br>± 0.02dB/℃ ( 6GHz 到 8.5GHz )   |                         |                         |                               |                               |                               |                         |                         |                               |                               |
|                          | 相位                                                                                                          | ± 0.1° /℃ ( <3GHz )<br>± 0.2° /℃ ( 3GHz 到 6GHz )<br>± 0.4° /℃ ( 6GHz 到 8.5GHz )        |                         |                         |                               |                               |                               |                         |                         |                               |                               |

|          |               |                                                                                           |
|----------|---------------|-------------------------------------------------------------------------------------------|
| 后面板      | 内参考输出         | 接口类型: BNC (阴)<br>输出频率: 10MHz ± 1ppm<br>信号类型: 正弦波<br>输出电平: 0dBm ± 3dB<br>输出阻抗: 50Ω         |
|          | 视频输出          | 15针迷你D-Sub, 阴头, 驱动VGA兼容监视器                                                                |
|          | GPIO接口        | 24针D-Sub (D-24型), 阴头, 与IEEE-488兼容                                                         |
|          | USB接口         | USB 3.0, Type A, 1个; USB 2.0, Type A, 3个                                                  |
|          | LAN接口         | RJ-45, 2个10/100/1000 BaseT以太网, 在数据速率之间自动切换                                                |
|          | 并口            | 25针D-Sub, 阴头, LPT打印                                                                       |
| EMC      | 串口            | 9针D-Sub, 阳头, 与RS232兼容                                                                     |
|          | 仪器供电          | 频率: 47 ~ 63Hz<br>电压: 90 ~ 264 VAC<br>功率: 150VA最大                                          |
|          | 射频发射          | EN 61326-1:2013<br>EN 61326-2-1:2013<br>CISPR 11:2009<br>CISPR 16-1系列<br>Group 1, Class A |
|          | 抗扰度           | 执行标准: EN 61326-1:2013<br>EN 61326-2-1:2013                                                |
|          | ESD           | 执行标准: IEC 61000-4-2:2008<br>± 4kV CD / ± 8kV AD                                           |
|          | 射频电磁场         | 执行标准: IEC 61000-4-3:2006+A1+A2<br>3 V/m, 80-1000 MHz<br>80% AM, 1kHz                      |
| 安全性      |               | IEC 61010-1:2006 / EN 61010-1:2006                                                        |
| 工作环<br>境 | 温度            | +5℃ ~ +40℃                                                                                |
|          | 校准温度          | 23℃ ± 5℃                                                                                  |
|          | 湿度            | 20% 至 80%                                                                                 |
|          | 高度            | 0至2000米                                                                                   |
| 贮存环<br>境 | 振动            | 执行标准IEC 60068-2-6, 0.21g 最大值, 5Hz 至 50Hz                                                  |
|          | 温度            | -10℃ ~ +60℃                                                                               |
|          | 湿度            | 20% ~ 90%                                                                                 |
|          | 高度            | 0~4572米                                                                                   |
| 形体       | 振动            | 执行标准IEC 60068-2-64, 0.5g 最大值, 5Hz 至 500Hz                                                 |
|          | 冲击            | 执行标准IEC 60068-2-27, 40g 最大                                                                |
| 形体       | 尺寸<br>(W*H*D) | 445mm * 265mm * 330mm                                                                     |
|          | 重量            | 15kg                                                                                      |

# ORDERING INFORMATION

5

| 规格型号       | 订货号          | 名称                                                              |
|------------|--------------|-----------------------------------------------------------------|
| 标准配置       |              |                                                                 |
| FTM832A    | 0130.7632.00 | 100kHz到3GHz, 50 $\Omega$ , 2-Port矢量网络分析仪                        |
| FTM832B    | 0130.7632.01 | 100kHz到3GHz, 75 $\Omega$ , 2-Port矢量网络分析仪                        |
| FTM835B    | 0130.7635.00 | 100kHz到3.5GHz, 75 $\Omega$ , 2-Port矢量网络分析仪                      |
| FTM842A    | 0130.7642.00 | 100kHz到4.5GHz, 50 $\Omega$ , 2-Port矢量网络分析仪                      |
| FTM862A    | 0130.7662.00 | 100kHz到6GHz, 50 $\Omega$ , 2-Port矢量网络分析仪                        |
| FTM82A     | 0130.7682.00 | 100kHz到8.5GHz, 50 $\Omega$ , 2-Port矢量网络分析仪                      |
| 标准配置       |              |                                                                 |
| FTM800-600 | 6130.0200.01 | 12.1英寸触摸屏                                                       |
| FTM800-713 | 6130.0500.19 | N(阳)-N(阳), 6GHz, 50 $\Omega$ , 0.6米, 射频测试电缆 ( FMT832A/42A/62A ) |
| FTM800-721 | 6130.0500.27 | N(阳)-N(阳), 9GHz, 50 $\Omega$ , 0.6米, 射频测试电缆 ( FMT882A )         |
| FTM800-702 | 6130.0500.08 | N(阳)-N(阳), 3GHz, 75 $\Omega$ , 0.6米, 射频测试电缆 ( MT832B/35B )      |
| FT8831-706 | 6190.0500.19 | 1.5米网线 ( 对连线 )                                                  |
| SA8300-700 | 6190.0500.40 | 三芯电源线 ( 1.5m )                                                  |
| FTM800-000 | 6130.0600.53 | FTM800系列中文光盘 ( VNA Workbench软件+说明书 )                            |
| FTM800-701 | 6190.0900.20 | 4A保险管                                                           |

| 规格型号       | 订货号          | 名称                                              |
|------------|--------------|-------------------------------------------------|
| FTM800-716 | 6130.0500.22 | N(阳)-N(阴), 6GHz, 50 $\Omega$ , 1.0米, 射频测试电缆     |
| FTM800-717 | 6130.0500.23 | N(阳)-SMA(阳), 6GHz, 50 $\Omega$ , 0.6米, 射频测试电缆   |
| FTM800-718 | 6130.0500.24 | N(阳)-SMA(阳), 6GHz, 50 $\Omega$ , 1.0米, 射频测试电缆   |
| FTM800-719 | 6130.0500.25 | SMA(阳)-SMA(阳), 6GHz, 50 $\Omega$ , 0.6米, 射频测试电缆 |
| FTM80-720  | 6130.0500.26 | SMA(阳)-SMA(阳), 6GHz, 50 $\Omega$ , 1.0米, 射频测试电缆 |
| FTM800-701 | 6130.0500.07 | N(阳)-N(阳), 9GHz, 50 $\Omega$ , 0.6米, 射频测试电缆     |
| FTM800-722 | 6130.0500.28 | N(阳)-N(阳), 9GHz, 50 $\Omega$ , 1.0米, 射频测试电缆     |
| FTM800-723 | 6130.0500.29 | N(阳)-N(阴), 9GHz, 50 $\Omega$ , 0.6米, 射频测试电缆     |
| FTM800-724 | 6130.0500.30 | N(阳)-N(阴), 9GHz, 50 $\Omega$ , 1.0米, 射频测试电缆     |
| FTM800-725 | 6130.0500.31 | N(阳)-3.5mm(阳), 9GHz, 50 $\Omega$ , 0.6米, 射频测试电缆 |
| FTM800-726 | 6130.0500.32 | N(阳)-3.5mm(阳), 9GHz, 50 $\Omega$ , 1.0米, 射频测试电缆 |
| FTM800-727 | 6130.0500.33 | SMA(阳)-SMA(阳), 9GHz, 50 $\Omega$ , 0.6米, 射频测试电缆 |

|            |              |                                        |
|------------|--------------|----------------------------------------|
| FTM800-002 | 6130.0600.55 | FTM800系列检测                             |
| FT1001-004 | 6190.0600.08 | 合格证（国内专用）                              |
| 系列选件       |              |                                        |
| FTM800-800 | 2130.7600.00 | 时域分析软件                                 |
| FTM800-703 | 6130.0500.09 | GPIB卡选件                                |
| 75Ω射频测试电缆  |              |                                        |
| FTM800-704 | 6130.0500.10 | N(阳)-N(阳), 3GHz, 75Ω, 1.0米, 射频测试电缆     |
| FTM800-705 | 6130.0500.11 | N(阳)-F(阳), 3GHz, 75Ω, 0.6米, 射频测试电缆     |
| FTM800-706 | 6130.0500.12 | N(阳)-F(阳), 3GHz, 75Ω, 1.0米, 射频测试电缆     |
| FTM800-707 | 6130.0500.13 | N(阳)-BNC(阳), 2GHz, 75Ω, 0.6米, 射频测试电缆   |
| FTM800-708 | 6130.0500.14 | N(阳)-BNC(阳), 2GHz, 75Ω, 1.0米, 射频测试电缆   |
| 50Ω射频测试电缆  |              |                                        |
| FTM800-709 | 6130.0500.15 | N(阳)-BNC(阳), 2GHz, 50Ω, 0.6米, 射频测试电缆   |
| FTM800-710 | 6130.0500.16 | N(阳)-BNC(阳), 2GHz, 50Ω, 1.0米, 射频测试电缆   |
| FTM800-711 | 6130.0500.17 | BNC(阳)-BNC(阳), 2GHz, 50Ω, 0.6米, 射频测试电缆 |

|             |              |                                        |
|-------------|--------------|----------------------------------------|
| FTM800-728  | 6130.0500.34 | SMA(阳)-SMA(阳), 9GHz, 50Ω, 1.0米, 射频测试电缆 |
| 50Ω射频稳相电缆   |              |                                        |
| FTM800-731  | 6130.0500.59 | N(阳)-N(阳), 9GHz, 稳相, 50Ω, 0.6米         |
| FTM800-732  | 6130.0500.60 | N(阳)-N(阳), 9GHz, 稳相, 50Ω, 1.0米         |
| FTM800-733  | 6130.0500.61 | N(阳)-N(阴), 9GHz, 稳相, 50Ω, 0.6米         |
| FTM800-734  | 6130.0500.62 | N(阳)-N(阴), 9GHz, 稳相, 50Ω, 1.0米         |
| FTM800-735  | 6130.0500.63 | N(阳)-SMA(阳), 9GHz, 稳相, 50Ω, 0.6米       |
| FTM800-736  | 6130.0500.64 | N(阳)-SMA(阳), 9GHz, 稳相, 50Ω, 1.0米       |
| FTM800-737  | 6130.0500.65 | SMA(阳)-SMA(阳), 9GHz, 稳相, 50Ω, 0.6米     |
| FTM800-738  | 6130.0500.66 | SMA(阳)-SMA(阳), 9GHz, 稳相, 50Ω, 1.0米     |
| 50Ω射频稳相铠甲电缆 |              |                                        |
| FTM800-786  | 6130.0501.14 | N(阳)-N(阳), 9GHz, 稳相, 铠甲, 50Ω, 0.6米     |
| FTM800-787  | 6130.0501.15 | N(阳)-N(阳), 9GHz, 稳相, 铠甲, 50Ω, 1.0米     |
| FTM800-788  | 6130.0501.16 | N(阳)-N(阴), 9GHz, 稳相, 铠甲, 50Ω, 0.6米     |
| FTM800-789  | 6130.0501.17 | N(阳)-N(阴), 9GHz, 稳相, 铠甲, 50Ω, 1.0米     |
| FTM800-790  | 6130.0501.18 | N(阳)-SMA(阳), 9GHz, 稳相, 铠甲, 50Ω, 0.6米   |
| FTM800-791  | 6130.0501.19 | N(阳)-SMA(阳), 9GHz, 稳相, 铠甲50Ω, 1.0米     |

|            |              |                                        |
|------------|--------------|----------------------------------------|
| FTM800-712 | 6130.0500.18 | BNC(阳)-BNC(阳), 2GHz, 50Ω, 1.0米, 射频测试电缆 |
| FTM800-700 | 6130.0500.06 | N(阳)-N(阳), 6GHz, 50Ω, 0.6米, 射频测试电缆     |
| FTM800-714 | 6130.0500.20 | N(阳)-N(阳), 6GHz, 50Ω, 1.0米, 射频测试电缆     |
| FTM800-715 | 6130.0500.21 | N(阳)-N(阴), 6GHz, 50Ω, 0.6米, 射频测试电缆     |

|                            |              |                                        |
|----------------------------|--------------|----------------------------------------|
| FTM800-792                 | 6130.0501.20 | SMA(阳)-SMA(阳), 9GHz, 稳相, 铠甲, 50Ω, 0.6米 |
| FTM800-793                 | 6130.0501.21 | SMA(阳)-SMA(阳), 9GHz, 稳相, 铠甲, 50Ω, 1.0米 |
| 校准件选件 (含开路器、短路器、负载、直通器)    |              |                                        |
| 75Ω 校准套件 (含开路器、短路器、负载、直通器) |              |                                        |
| CK-N030B                   | 6130.0500.35 | N(阴), DC 到 3GHz, 75Ω 校准套件              |

| 规格型号                             | 订货号          | 名称                          |
|----------------------------------|--------------|-----------------------------|
| CK-N031B                         | 6130.0500.36 | N(阳), DC 到 3GHz, 75Ω 校准套件   |
| CK-F030B                         | 6130.0500.37 | F(阴), DC 到 3GHz, 75Ω 校准套件   |
| CK-F031B                         | 6130.0500.38 | F(阳), DC 到 3GHz, 75Ω 校准套件   |
| CK-B020B                         | 6130.0500.39 | BNC(阴), DC 到 2GHz, 75Ω 校准套件 |
| CK-B021B                         | 6130.0500.40 | BNC(阳), DC 到 2GHz, 75Ω 校准套件 |
| N 型 50Ω 校准套件 (含开路器、短路器、负载、直通器)   |              |                             |
| CK-N060A                         | 6130.0500.43 | N(阴), DC 到 6GHz, 50Ω        |
| CK-N061A                         | 6130.0500.44 | N(阳), DC 到 6GHz, 50Ω        |
| CK-N090A                         | 6130.0500.45 | N(阴), DC 到 9GHz, 50Ω        |
| CK-N091A                         | 6130.0500.46 | N(阳), DC 到 9GHz, 50Ω        |
| CK-N180A                         | 6130.0500.47 | N(阴), DC 到 18GHz, 50Ω       |
| CK-N181A                         | 6130.0500.48 | N(阳), DC 到 18GHz, 50Ω       |
| BNC 型 50Ω 校准套件 (含开路器、短路器、负载、直通器) |              |                             |

| 规格型号       | 订货号          | 名称                                   |
|------------|--------------|--------------------------------------|
| FTM800-754 | 6130.0500.82 | N(阳)-N(阴), DC 到 18GHz, VSWR<1.15     |
| FTM800-755 | 6130.0500.83 | N(阴)-N(阴), DC 到 18GHz, VSWR<1.15     |
| FTM800-756 | 6130.0500.84 | N(阳)-SMA(阳), DC 到 18GHz, VSWR<1.2    |
| FTM800-757 | 6130.0500.85 | N(阳)-SMA(阴), DC 到 18GHz, VSWR<1.2    |
| FTM800-758 | 6130.0500.86 | N(阴)-SMA(阳), DC 到 18GHz, VSWR<1.2    |
| FTM800-759 | 6130.0500.87 | N(阴)-SMA(阴), DC 到 18GHz, VSWR<1.2    |
| FTM800-760 | 6130.0500.88 | N(阳)-3.5mm(阳), DC 到 18GHz, VSWR<1.15 |
| FTM800-761 | 6130.0500.89 | N(阳)-3.5mm(阴), DC 到 18GHz, VSWR<1.15 |
| FTM800-762 | 6130.0500.90 | N(阴)-3.5mm(阳), DC 到 18GHz, VSWR<1.15 |
| FTM800-763 | 6130.0500.91 | N(阴)-3.5mm(阴), DC 到 18GHz, VSWR<1.15 |
| FTM800-764 | 6130.0500.92 | SMA(阳)-SMA(阳), DC 到 18GHz, VSWR<1.2  |
| FTM800-765 | 6130.0500.93 | SMA(阳)-SMA(阴), DC 到 18GHz, VSWR<1.2  |
| FTM800-766 | 6130.0500.94 | SMA(阴)-SMA(阴), DC 到 18GHz, VSWR<1.2  |

|                                   |              |                                 |
|-----------------------------------|--------------|---------------------------------|
| CK-B020A                          | 6130.0500.49 | BNC(阴), DC 到 2GHz, 50Ω          |
| CK-B021A                          | 6130.0500.50 | BNC(阳), DC 到 2GHz, 50Ω          |
| 3.5mm型 50Ω 校准套件 (含开路器、短路器、负载、直通器) |              |                                 |
| CK-4060A                          | 6130.0500.51 | 3.5mm(阴), DC 到 6GHz, 50Ω        |
| CK-4061A                          | 6130.0500.52 | 3.5mm(阳), DC 到 6GHz, 50Ω        |
| CK-4090A                          | 6130.0500.53 | 3.5mm(阴), DC 到 9GHz, 50Ω        |
| CK-4091A                          | 6130.0500.54 | 3.5mm(阳), DC 到 9GHz, 50Ω        |
| CK-4260A                          | 6130.0500.55 | 3.5mm(阴), DC 到 26.5GHz, 50Ω     |
| CK-4261A                          | 6130.0500.56 | 3.5mm(阳), DC 到 26.5GHz, 50Ω     |
| <b>适配器</b>                        |              |                                 |
| 75Ω 适配器                           |              |                                 |
| FTM800-739                        | 6130.0500.67 | N(阳)-F(阴), DC到3GHz, VSWR<1.15   |
| FTM800-740                        | 6130.0500.68 | N(阳)-F(阳), DC到3GHz, VSWR<1.15   |
| FTM800-741                        | 6130.0500.69 | N(阴)-F(阴), DC到3GHz, VSWR<1.15   |
| FTM800-742                        | 6130.0500.70 | N(阴)-F(阳), DC到3GHz, VSWR<1.15   |
| FTM800-743                        | 6130.0500.71 | N(阳)-BNC(阴), DC到2GHz, VSWR<1.1  |
| FTM800-744                        | 6130.0500.72 | N(阳)-BNC(阳), DC到2GHz, VSWR<1.1  |
| FTM800-745                        | 6130.0500.73 | N(阴)-BNC(阴), DC到2GHz, VSWR<1.1  |
| FTM800-746                        | 6130.0500.74 | N(阴)-BNC(阳), DC到2GHz, VSWR<1.1  |
| FTM800-747                        | 6130.0500.75 | F(阴)-F(阴), DC到3GHz, VSWR<1.15   |
| FTM800-748                        | 6130.0500.76 | F(阳)-F(阳), DC到3GHz, VSWR<1.15   |
| 50Ω 适配器                           |              |                                 |
| FTM800-749                        | 6130.0500.77 | N(阳)-BNC(阴), DC到2GHz, VSWR<1.1  |
| FTM800-750                        | 6130.0500.78 | N(阳)-BNC(阳), DC到2GHz, VSWR<1.1  |
| FTM800-751                        | 6130.0500.79 | N(阴)-BNC(阴), DC到2GHz, VSWR<1.1  |
| FTM800-752                        | 6130.0500.80 | N(阴)-BNC(阳), DC到2GHz, VSWR<1.1  |
| FTM800-753                        | 6130.0500.81 | N(阳)-N(阳), DC 到18GHz, VSWR<1.15 |

|             |              |                                          |
|-------------|--------------|------------------------------------------|
| FTM800-767  | 6130.0500.95 | 3.5mm(阳)-3.5mm(阳), DC到26.5GHz, VSWR<1.15 |
| FTM800-768  | 6130.0500.96 | 3.5mm(阳)-3.5mm(阴), DC到26.5GHz, VSWR<1.15 |
| FTM800-769  | 6130.0500.97 | 3.5mm(阴)-3.5mm(阴), DC到26.5GHz, VSWR<1.15 |
| <b>其他选件</b> |              |                                          |
| 75Ω 标准负载    |              |                                          |
| FTM800-770  | 6130.0500.98 | N(阳), DC到3GHz, 35dB                      |
| FTM800-771  | 6130.0500.99 | N(阴), DC到3GHz, 35dB                      |
| FTM800-772  | 6130.0501.00 | F(阳), DC到3GHz, 35dB                      |
| FTM800-773  | 6130.0501.01 | F(阴), DC到3GHz, 35dB                      |
| FTM800-774  | 6130.0501.02 | BNC(阳), DC到2GHz, 35dB                    |
| FTM800-775  | 6130.0501.03 | BNC(阴), DC到2GHz, 35dB                    |
| 50Ω 标准负载    |              |                                          |
| FTM800-776  | 6130.0501.04 | BNC(阳), DC到2GHz, 35dB                    |
| FTM800-777  | 6130.0501.05 | BNC(阴), DC到2GHz, 35dB                    |
| FTM800-778  | 6130.0501.06 | N(阳), DC到6GHz, 35dB                      |
| FTM800-779  | 6130.0501.07 | N(阴), DC到6GHz, 35dB                      |
| FTM800-780  | 6130.0501.08 | SMA(阳), DC到6GHz, 35dB                    |
| FTM800-781  | 6130.0501.09 | SMA(阴), DC到6GHz, 35dB                    |
| FTM800-782  | 6130.0501.10 | N(阳), DC到9GHz, 35dB                      |
| FTM800-783  | 6130.0501.11 | N(阴), DC到9GHz, 35dB                      |
| FTM800-784  | 6130.0501.12 | 3.5mm(阳), DC到9GHz, 35dB                  |
| FTM800-785  | 6130.0501.13 | 3.5mm(阴), DC到9GHz, 35dB                  |
| <b>其他选件</b> |              |                                          |
| FTM800-729  | 6130.0500.57 | 阻抗变换器N(50阳)-N(75阴), 3GHz                 |
| FTM800-730  | 6130.0500.58 | 阻抗变换器N(75阳)-N(50阴), 3GHz                 |