

# Extended Digitizing Function

MS269xA-050 HDD Digitizing Interface

MS2690A/MS2691A/MS2692A

Signal Analyzer

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## Extended Digitizing Function

MS269xA-050 HDD Digitizing Interface

### Product Introduction

(Version 1.01)

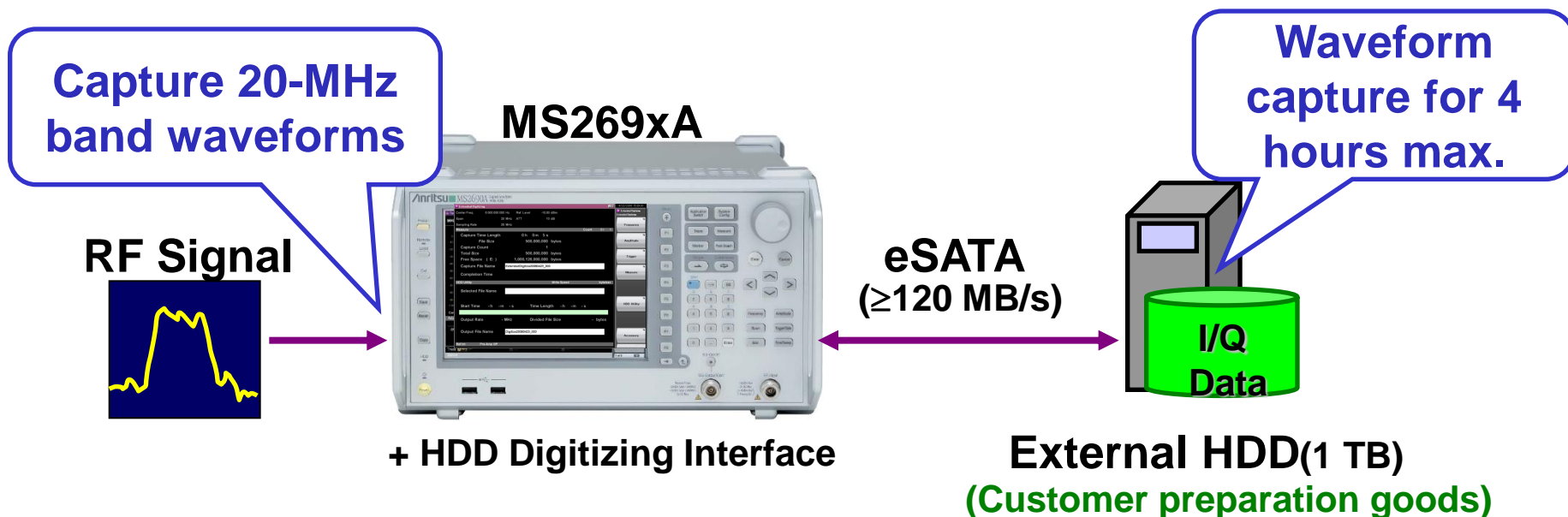


**Anritsu Corporation**

# Extended Digitizing Function

Captures all RF signals for 20 MHz band max. up to 4 hours and supports long-term capture of digitized data to external eSATA HDD using Extended Digitizing option

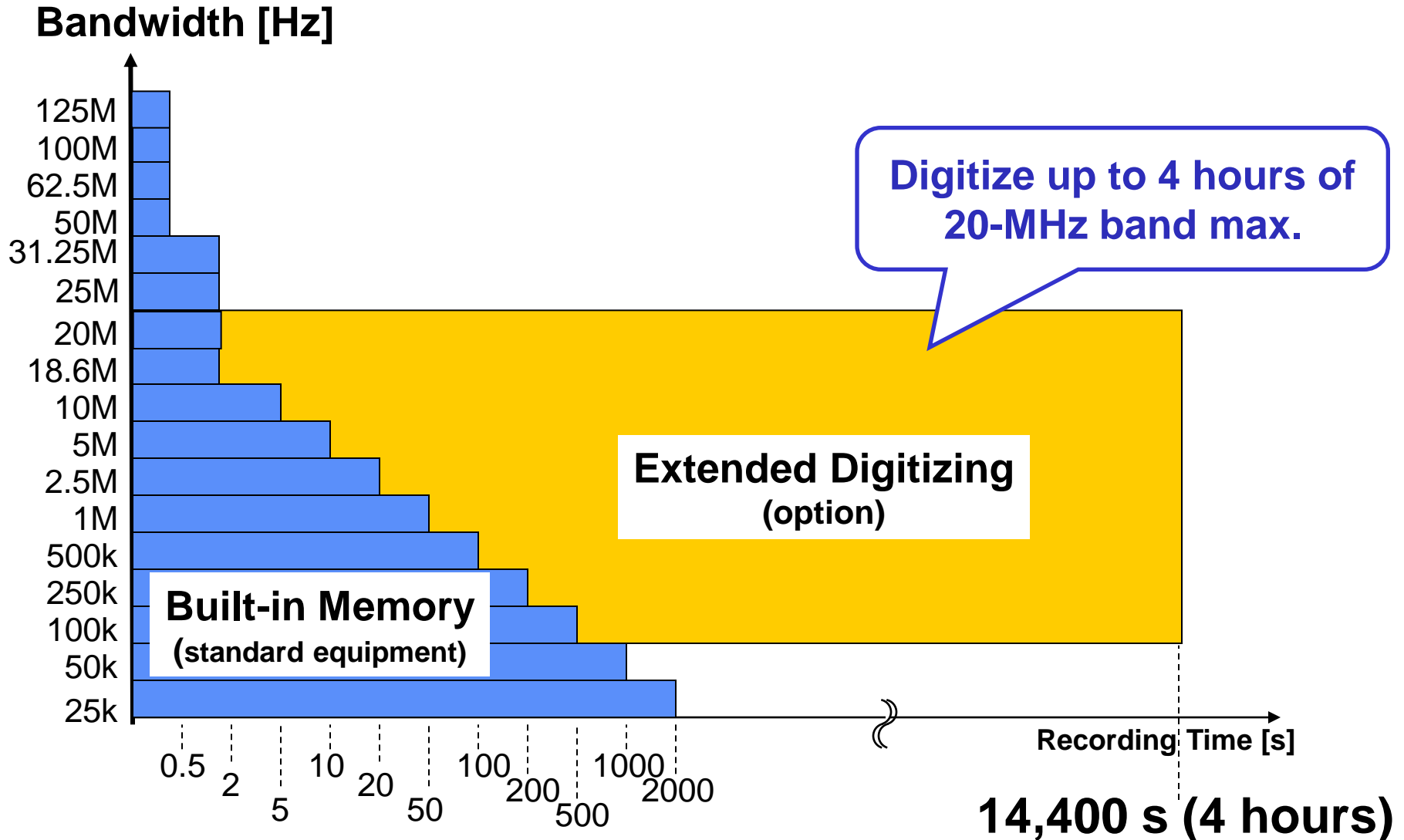
Useful for troubleshooting uncommon faults.



# Extended Digitizing Features

- **Capture for 20-MHz wideband max.**
- **Waveform capture for 4 hours max.**
- **Easy resample function**
- **Eliminates troublesome instrument error calibration**

# Wideband/Long-Term Waveform Capture



# Easy Resample Function

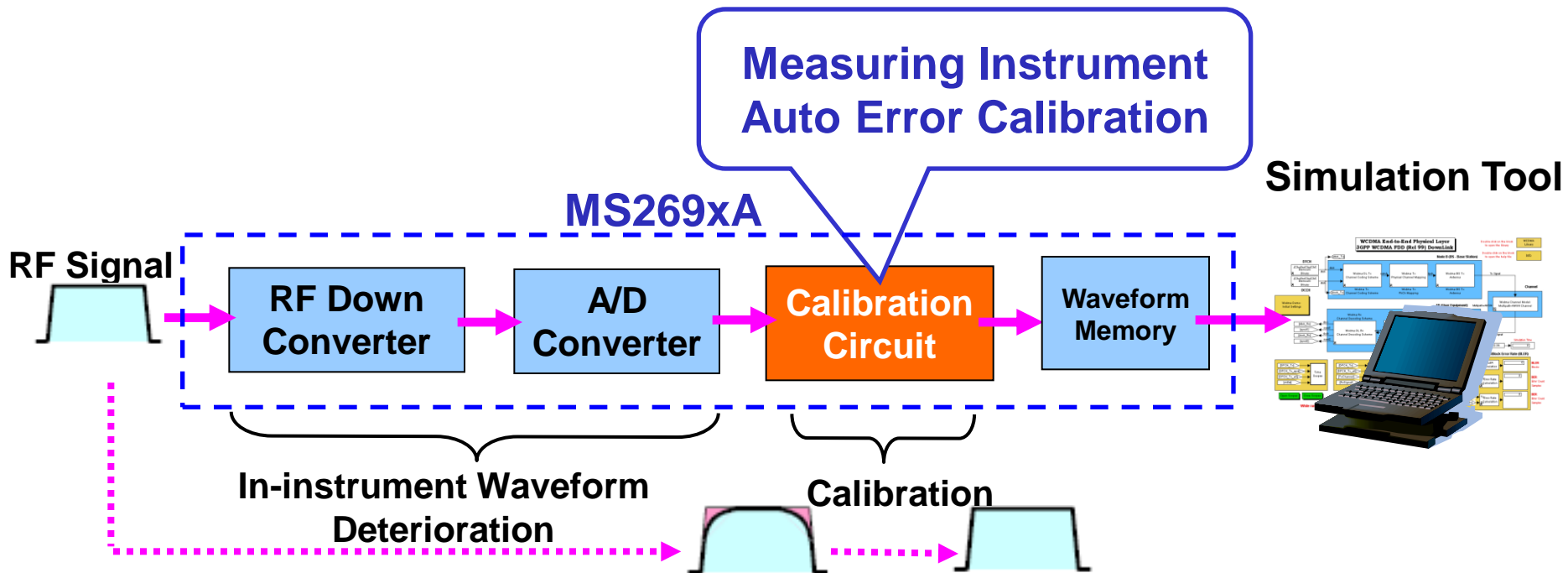
Supports easy conversion of sampling rates for captured waveform data.

The screenshot displays the 'Extended Digitizing' software interface. The top section shows measurement parameters: Center Freq. (1 000 000 000 Hz), Ref. Level (-10.00 dBm), Trigger, SG Marker, Span (100 kHz), ATT, 10 dB, Trigger Slope, Rise, and Sampling Rate (200 kHz). Below this is a 'Measure' section with a 'Count' of 0 / 1. The 'Measure' section includes: Capture Time Length (0 h 0 m 5 s), File Size (8,000,000 bytes), Capture Count (1), Total Size (8,000,000 bytes), Free Space (D:) (13,461,000,000 bytes), Capture File Name (ExtendedDigitize20080718\_013), and Completion Time. The 'HDD Utility' section shows Write Speed (bytestsec), Selected File Name (ExtendedDigitize20080718\_012\_00), Start Time (0 h 0 m 0 s), Time Length (0 h 0 m 5 s), Output Rate (200.00 kHz), Divided File Size (100,000,000 bytes), and Output File Name (Digitize20080718\_002). At the bottom, it shows Ref.Int and Pre-Amp Off.

Easy to change output file sampling rate

# No Troublesome Error Calibration

Built-in automatic error calibration eliminates troublesome calculations using calibration data and calibration data verification. Digitized waveform data can be used by simulation tools.



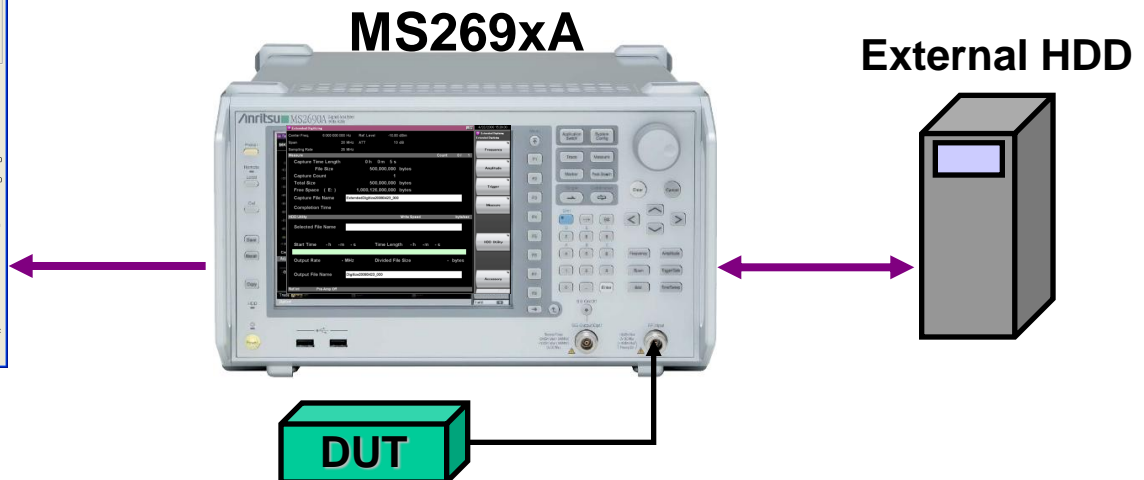
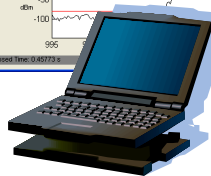
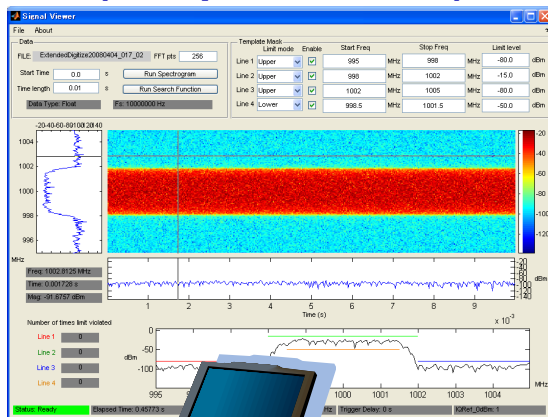
# Application Examples

(1) Record DUT signals to external HDD using Extended Digitizing Function

(2) Find fault locations in recorded data using Signal Viewer and check with spectrogram

(3) Extract required data (around fault) using extended digitizing software and analyze precisely using simulation tools

## Signal Viewer (Sample Software)



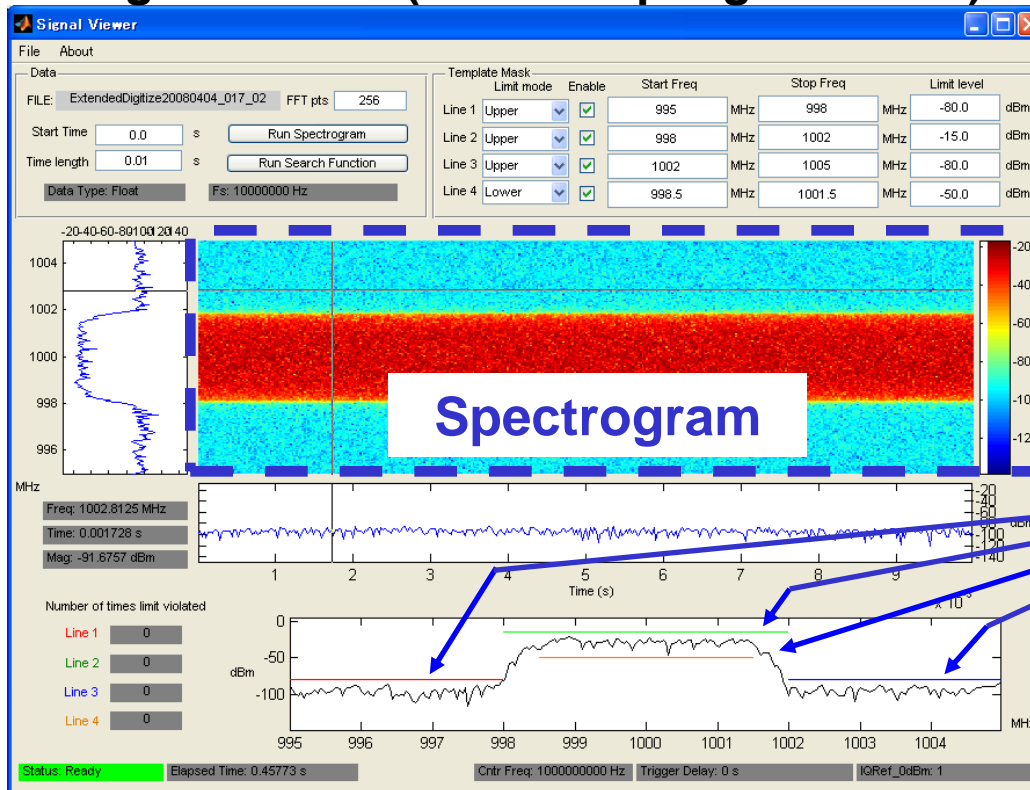


# Useful Search Tool for Finding Faults

## Signal Viewer

IQ data captured using the digitize function can be searched by setting limit lines to troubleshoot uncommon faults.

### Signal Viewer (Free Sampling Software)



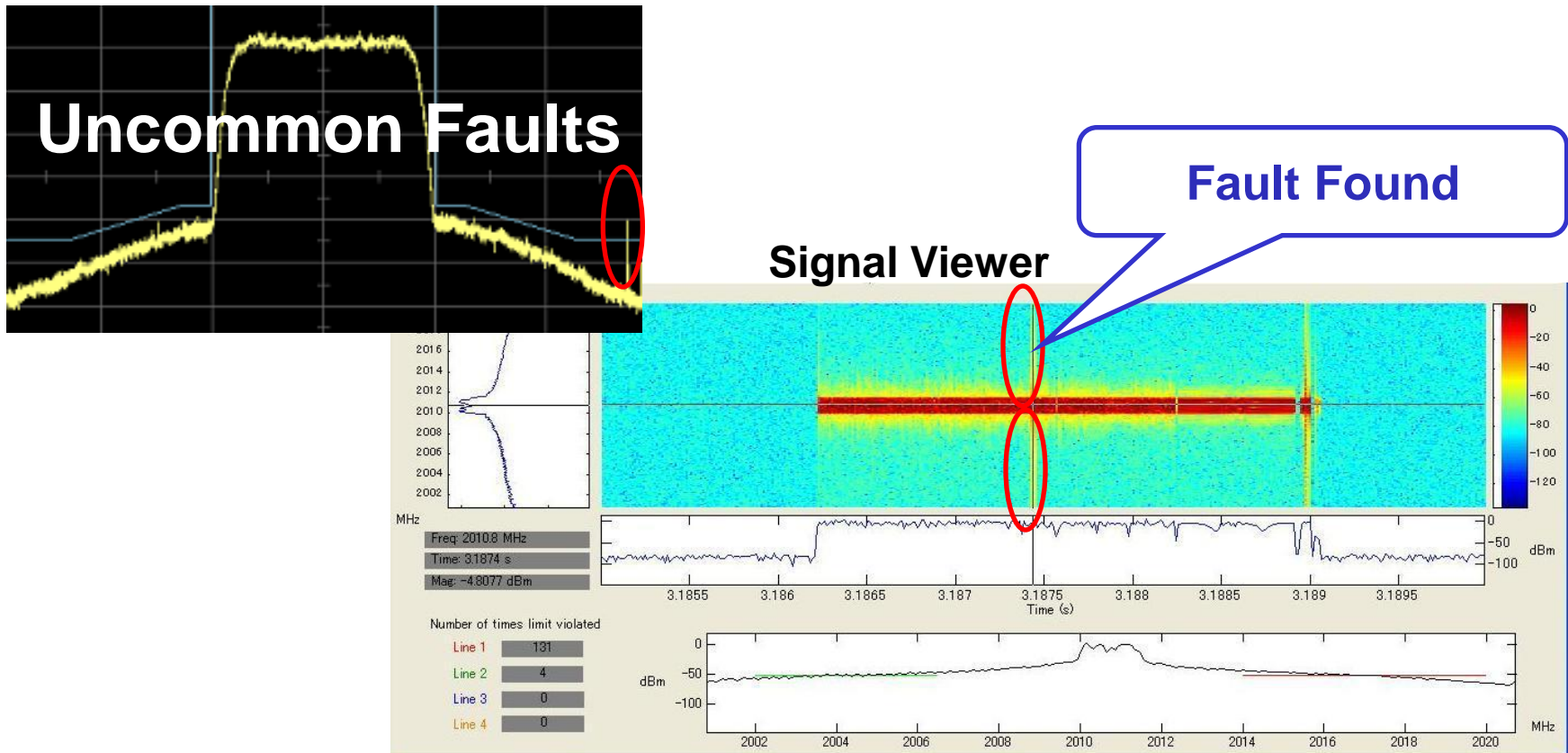
Set 4 limit lines max.  
for searching



Output file for period  
when limits exceeded

# Application Examples (1): Fault Analysis

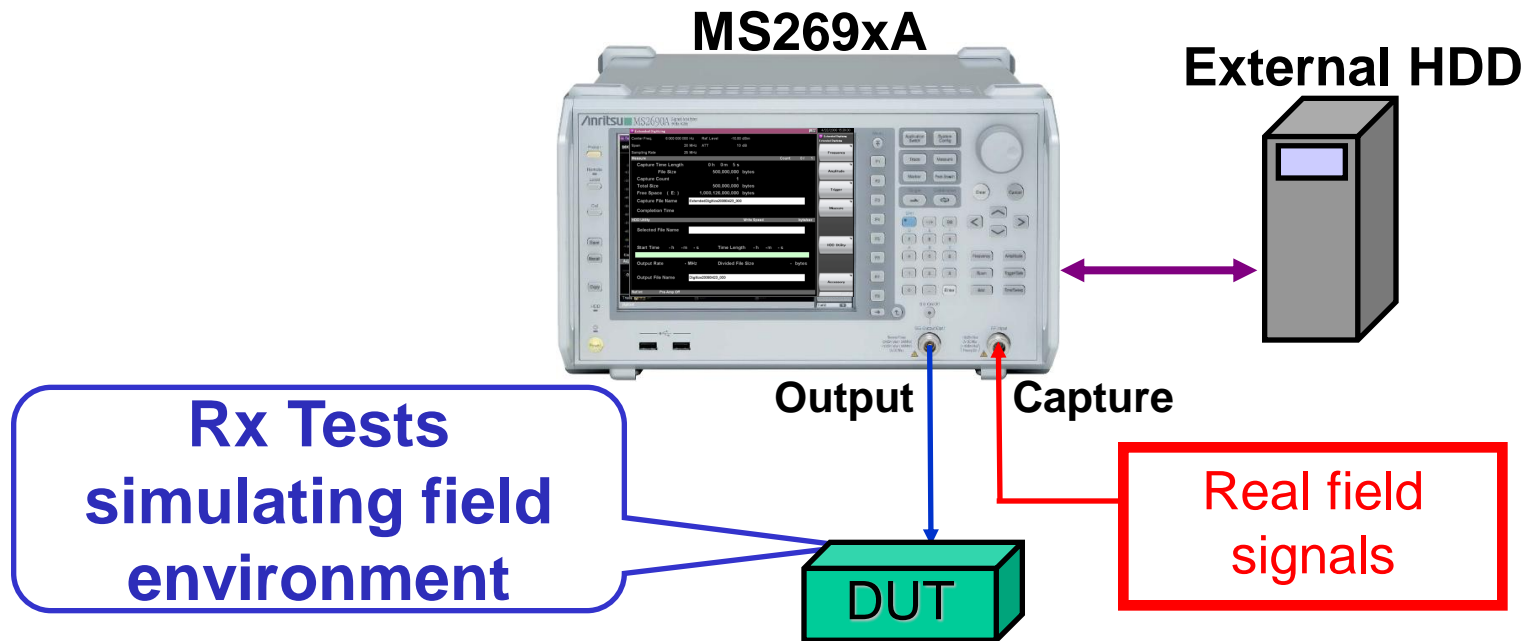
Uncommon faults are difficult to capture. However, the Extended Digitizing Function supports long-term waveform capture while the Signal Viewer function supports seamless searching.



# Application Examples (2): Reproduce Field Environment

Captured data can be reproduced\* using the optional MS269xA-020 Vector Signal Generator. This supports easy Rx tests simulating the real environment by repeating evaluation of data captured in the field.

\*: Time depends on memory capacity (1 GB) of SG option



# Specifications

Item	Specification													
Bandwidth, Sampling Rate, Recorded Data Format	<table border="1"> <thead> <tr> <th data-bbox="556 304 948 347">Bandwidth</th> <th data-bbox="954 304 1365 347">Sampling Rate</th> <th data-bbox="1371 304 1798 347">Recorded Data Format</th> </tr> </thead> <tbody> <tr> <td data-bbox="556 351 948 432">100 k, 250 k, 500 k, 1 M, 2.5 M, 5 MHz</td> <td data-bbox="954 351 1365 432">200 k, 500 k, 1 M, 2 M, 5 M, 10 MHz</td> <td data-bbox="1371 351 1798 432">Floating Decimal Format</td> </tr> <tr> <td data-bbox="556 436 948 479">10 MHz, 18.6 MHz</td> <td data-bbox="954 436 1365 479">20 MHz</td> <td data-bbox="1371 436 1798 479" rowspan="2">Fixed Decimal Format (16 bit)</td> </tr> <tr> <td data-bbox="556 484 948 526">20 MHz</td> <td data-bbox="954 484 1365 526">25 MHz</td> </tr> </tbody> </table>			Bandwidth	Sampling Rate	Recorded Data Format	100 k, 250 k, 500 k, 1 M, 2.5 M, 5 MHz	200 k, 500 k, 1 M, 2 M, 5 M, 10 MHz	Floating Decimal Format	10 MHz, 18.6 MHz	20 MHz	Fixed Decimal Format (16 bit)	20 MHz	25 MHz
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10 MHz, 18.6 MHz	20 MHz	Fixed Decimal Format (16 bit)												
20 MHz	25 MHz													
Recording Time	5 seconds to 4 hours													
Number of Recorded File	1000 files max.													
Resample Function	Convert by resampling at data retrieval Setting range: Sampling rate/2 to Sampling rate													
Trigger Function	Video, Wide IF Video, External, SG Marker													
Count Mode	Capturing times: 1 to 20 times													
Interface	Connector: eSATA Connector Hot Plug: Not supported*													
External HDD (Customer preparation goods)	Required items Interface: eSATA Write speed: >120 MB File system: NTFS													

\*: The main frame and external HDD must be off when connecting/disconnecting connectors.

# Note

• **United States**

**Anritsu Company**

1155 East Collins Blvd., Suite 100, Richardson,  
TX 75081, U.S.A.  
Toll Free: 1-800-267-4878  
Phone: +1-972-644-1777  
Fax: +1-972-671-1877

• **Canada**

**Anritsu Electronics Ltd.**

700 Silver Seven Road, Suite 120, Kanata,  
Ontario K2V 1C3, Canada  
Phone: +1-613-591-2003  
Fax: +1-613-591-1006

• **Brazil**

**Anritsu Eletrônica Ltda.**

Praça Amadeu Amaral, 27 - 1 Andar  
01327-010 - Bela Vista - São Paulo - SP - Brazil  
Phone: +55-11-3283-2511  
Fax: +55-11-3288-6940

• **Mexico**

**Anritsu Company, S.A. de C.V.**

Av. Ejército Nacional No. 579 Piso 9, Col. Granada  
11520 México, D.F., México  
Phone: +52-55-1101-2370  
Fax: +52-55-5254-3147

• **United Kingdom**

**Anritsu EMEA Ltd.**

200 Capability Green, Luton, Bedfordshire, LU1 3LU, U.K.  
Phone: +44-1582-433200  
Fax: +44-1582-731303

• **France**

**Anritsu S.A.**

12 avenue du Québec, Bâtiment Iris 1- Silic 612,  
91140 VILLEBON SUR YVETTE, France  
Phone: +33-1-60-92-15-50  
Fax: +33-1-64-46-10-65

• **Germany**

**Anritsu GmbH**

Nemetschek Haus, Konrad-Zuse-Platz 1  
81829 München, Germany  
Phone: +49-89-442308-0  
Fax: +49-89-442308-55

• **Italy**

**Anritsu S.r.l.**

Via Elio Vittorini 129, 00144 Roma, Italy  
Phone: +39-6-509-9711  
Fax: +39-6-502-2425

• **Sweden**

**Anritsu AB**

Borgarfjordsgatan 13A, 164 40 KISTA, Sweden  
Phone: +46-8-534-707-00  
Fax: +46-8-534-707-30

• **Finland**

**Anritsu AB**

Teknobulevardi 3-5, FI-01530 VANTAA, Finland  
Phone: +358-20-741-8100  
Fax: +358-20-741-8111

• **Denmark**

**Anritsu A/S (Service Assurance)**

**Anritsu AB (Test & Measurement)**

Kay Fiskers Plads 9, 2300 Copenhagen S, Denmark  
Phone: +45-7211-2200  
Fax: +45-7211-2210

• **Russia**

**Anritsu EMEA Ltd.**

**Representation Office in Russia**

Tverskaya str. 16/2, bld. 1, 7th floor.

Russia, 125009, Moscow

Phone: +7-495-363-1694

Fax: +7-495-935-8962

• **United Arab Emirates**

**Anritsu EMEA Ltd.**

**Dubai Liaison Office**

P O Box 500413 - Dubai Internet City

Al Thuraya Building, Tower 1, Suit 701, 7th Floor

Dubai, United Arab Emirates

Phone: +971-4-3670352

Fax: +971-4-3688460

• **Singapore**

**Anritsu Pte. Ltd.**

60 Alexandra Terrace, #02-08, The Comtech (Lobby A)

Singapore 118502

Phone: +65-6282-2400

Fax: +65-6282-2533

• **India**

**Anritsu Pte. Ltd.**

**India Branch Office**

3rd Floor, Shri Lakshminarayan Niwas, #2726, 80 ft Road,

HAL 3rd Stage, Bangalore - 560 075, India

Phone: +91-80-4058-1300

Fax: +91-80-4058-1301

• **P.R. China (Shanghai)**

**Anritsu (China) Co., Ltd.**

Room 1715, Tower A CITY CENTER of Shanghai,

No.100 Zunyi Road, Chang Ning District,

Shanghai 200051, P.R. China

Phone: +86-21-6237-0898

Fax: +86-21-6237-0899

• **P.R. China (Hong Kong)**

**Anritsu Company Ltd.**

Units 4 & 5, 28th Floor, Greenfield Tower, Concordia Plaza,

No. 1 Science Museum Road, Tsim Sha Tsui East,

Kowloon, Hong Kong, P.R. China

Phone: +852-2301-4980

Fax: +852-2301-3545

• **Japan**

**Anritsu Corporation**

8-5, Tamura-cho, Atsugi-shi, Kanagawa, 243-0016 Japan

Phone: +81-46-296-1221

Fax: +81-46-296-1238

• **Korea**

**Anritsu Corporation, Ltd.**

502, 5FL H-Square N B/D, 681

Sampyeong-dong, Bundang-gu, Seongnam-si,

Gyeonggi-do, 463-400 Korea

Phone: +82-31-696-7750

Fax: +82-31-696-7751

• **Australia**

**Anritsu Pty. Ltd.**

Unit 21/270 Ferntree Gully Road, Notting Hill,

Victoria 3168, Australia

Phone: +61-3-9558-8177

Fax: +61-3-9558-8255

• **Taiwan**

**Anritsu Company Inc.**

7F, No. 316, Sec. 1, NeiHu Rd., Taipei 114, Taiwan

Phone: +886-2-8751-1816

Fax: +886-2-8751-1817

Please Contact: