

## General

This device is an error rate tester to measure bit error from input data in the transport stream (TS) format. This device consists of a transmission part (Transmit) which generates data for the measurement and a receiver part (Receiver) which measures the data. A MPEG-TS mode and a CONTINUANCE mode are equipped. The error rate of the TS packet format of each digital broadcasting can be measured at the MPEG-TS mode and the general error rate by the pseudo-random signal can be measured at the CONTINUANCE mode.



## Features

- The measurement data up to 210-Mbit/s are corresponded.
- When connecting to Eiden's OFDM signal generator and when using the PRBS data generated internally by this device, the error rate measurement in the MPEG-TS format of the terrestrial digital broadcasting can be realized.
- When connecting to Eiden's CMMB signal generator, the error rate measurement for the CMMB data can be realized.
- This device consists of the transmission part which generates the signal for the measurement and the receiver part which receives the signal.
- \* The measurement data in both the MPEG-TS packet format and the PRBS data format can be supplied.
- Packet Error Rate (PER) can be measured.
- Erroneous Second Ratio (ESR) can be measured.
- Null-packet filtering function is equipped.
- A GP-IB interface and a ETHERNET interface are equipped for the remote control.
- A touch-panel of a seven-inch TFT color crystal-liquid display is equipped. Therefore, an user interface having an excellent operability is supplied.

## Composition

- Main Body: One
- Dimensions: 350 (W) x 180 (H) x 230 (D) mm
- Weight: Approx. 6 kg
- Accessories
  - Power Cable (Including conversion connector three pins to two pins): One
  - Instruction Manual: One
  - Test Data: One
- Power Source
  - Allowable Range of Input Voltage: 100 VAC to 240 VAC (50/60 Hz)
  - Power Consumption: Less than 50 VA
- Operation Environment
  - Ambient Temperature: +5 ° C to +40 ° C

## Function Specifications

Interface of Transmission Part		
ASI OUTPUT	BNC-R (75-ohm)	One route 10-kbit/s to 210-Mbit/s
SPI OUTPUT	D-Sub 25pin (F) (LVDS)	One route 1.25-kbyte/s to 26.25-Mbyte/s
REFERENCE CLOCK INPUT	BNC-R (TTL/50-ohm)	One route 10-kHz to 100-MHz (Bit) or 1.25-kHz to 26.25-MHz (Byte)
Interface of Receiver Part		
ASI INPUT	BNC-R (75-ohm)	One route 10-kbit/s to 210-Mbit/s
SPI INPUT	D-Sub 25pin(F) (LVDS)	One route 1.25-kbyte/s to 26.25-Mbyte/s
SERIAL INPUT Clock, Data, Enable	BNC-R (50Ω)	Each one route 10-kbit/s to 100-Mbit/s

Remote Interface		
GP-IB	: IEEE488	: One route
ETHERNET	: RJ-45 : (10Base-T/100Base-TX)	: One route
Other Interface		
USB2.0	: Type-A	: Two routes
Signal Format		
SYNC+PRBS	: MPEG TS Packet Format	
HEADER+PRBS	: MPEG TS Packet Format	
HEADER+CONSTANT	: MPEG TS Packet Format	
		: This mode can be used only when Eiden's OFDM modulator is connected.
CONTINUANCE	: PRBS	: PRBS23: 2 <sup>23</sup> -1 (ITU-T0.151)
		: PRBS15: 2 <sup>15</sup> -1 (ITU-T0.151)
	: Word Patten	: 16 Bit Data (0000-FFFF(Hex))

## Screen Shots

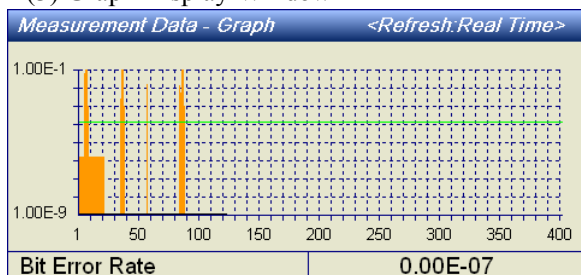
(1) BER Plan Window

Measurement Data - Numerical1 BER <Refresh:Real Time>	
Bit Error Rate(BER)	2.56E-06
Measurement Bit	1,000,000,000
Bit Error Count	2,560
Data Rate	80.000000 Mbps
Erroneous Second Ratio(ESR)	7.69 %
Expectation BER	2.56E-06

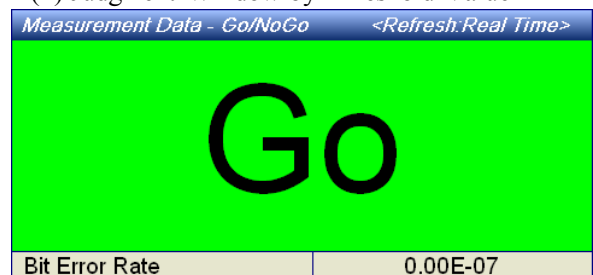
(2) PER Plan Window

Measurement Data - Numerical2 PER <Refresh:Real Time>	
Packet Error Rate(PER)	2.24E-05
Measurement Packet	668,450
Packet Error Count	15
Data Rate	80.000000 Mbps
Erroneous Second Ratio(ESR)	7.69 %
Expectation PER	2.24E-05

(3) Graph Display Window



(4) Judgment Window by Threshold Value



(5) Log Display Window

Measurement Data - Log					
Event	Meas. Time	Alarm	Date & Time	Log Condition	
00001	10 sec	TS: <span style="color: green;">●</span> MS: <span style="color: green;">●</span> Err: <span style="color: black;">●</span>	Dec.01,2009 18:11:20	Meas.,Err.,Thre.	↑
00002	10 sec	TS: <span style="color: green;">●</span> MS: <span style="color: green;">●</span> Err: <span style="color: black;">●</span>	Dec.01,2009 18:11:30	Meas.,Err.,Thre.	↑
00003	3 sec	TS: <span style="color: green;">●</span> MS: <span style="color: green;">●</span> Err: <span style="color: red;">●</span>	Dec.01,2009 18:11:33	Meas.,Err.,Thre.	↓
00004	10 sec	TS: <span style="color: green;">●</span> MS: <span style="color: green;">●</span> Err: <span style="color: black;">●</span>	Dec.01,2009 18:11:40	Meas.,Err.,Thre.	↑
00005	10 sec	TS: <span style="color: green;">●</span> MS: <span style="color: green;">●</span> Err: <span style="color: black;">●</span>	Dec.01,2009 18:11:50	Meas.,Err.,Thre.	↑
00006	4 sec	TS: <span style="color: green;">●</span> MS: <span style="color: green;">●</span> Err: <span style="color: red;">●</span>	Dec.01,2009 18:11:54	Meas.,Err.,Thre.	↓
00007	5 sec	TS: <span style="color: green;">●</span> MS: <span style="color: green;">●</span> Err: <span style="color: red;">●</span>	Dec.01,2009 18:11:55	Meas.,Err.,Thre.	↓
00008	10 sec	TS: <span style="color: green;">●</span> MS: <span style="color: green;">●</span> Err: <span style="color: black;">●</span>	Dec.01,2009 18:12:00	Meas.,Err.,Thre.	↓

Log Clear   Item   Event   Save Load   < Prev 1/3 Next >   ↓