

# Model: 7709B

## BER TESTER

For 4K,8K

Corresponding to Transmission System for Advanced Wideband Digital Satellite Broadcasting



### General

This device is a bit error rate tester from the input in the TS (Transport Stream) format.

When this device and Eiden's Advanced BS Digital Signal Generator 3256A are combined, the bit error rate of stream corresponding to the frame configuration based on ARIB STD-B44 2.0 Revised version (Transmission System for Advanced Wideband Digital Satellite Broadcasting) can be measured.

This device provides the environment that the bit error rate measurement against the complex frame configuration can be measured easily.

In addition, this device can measure the bit error rate of the TS packets in each digital television broadcast.

### Features

- When connecting Eiden's 3256A Advanced BS Digital Signal Generator, this device can measure the error rate of the MPEG-2 TS in the advanced BS broadcast system. This device can measure up to eight points at the same time after the choice of the relative stream number or the transmission mode. The signal in the TLV (Type Length Value) format can be checked. Each setting information are shared by 3256A and this device. Thus, the measurement environment can be constructed easily.
- When Eiden's OFDM modulator is connected to this device and when the internal PRBS data of this device are used, the BER measurement of the MPEG TS in the terrestrial digital broadcast and so on is possible.
- This device is equipped with the transmitter generating the signal for the measurement and the receiver for the measurement signal.
- \* The MPEG TS packet and the PRBS data of the data for the measurement can be generated.
- The Packet Error Rate (PER) can be measured.
- The Erroneous Second Ratio (ESR) can be measured.
- The null-packet filtering function is equipped.
- The Ethernet terminal for the remote control interface is equipped.
- A seven-inches WVGA touch-panel is equipped. Thus, an excellent operation ability is provided.

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### Function Specifications

Transmission Interface		
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 OUTPUT	BNC-R (TTL/50-ohm)	One route 10 kHz to 100 MHz (Bit) or 1.25 kHz to 26.25 MHz (Byte)
Receiver Interface		
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 (50-ohm)	One route for each terminal 10 kbit/s to 100 Mbit/s
TLV INPUT	RJ-45 (1000Base-T)	One route
Remote Interface		
ETHERNET	RJ-45 (10Base-T/100Base-TX)	One route Maximum: 210 Mbit/s
Other Interface		
USB2.0	Type A	Three routes
Measurement Mode		
ADVANCED BS/TLV	The measurement of the TS signal framed	
SYNC+PRBS	The measurement of the MPEG TS signal	
HEADER+PRBS	The measurement of the MPEG TS signal	
HEADER+CONSTANT	The measurement of the MPEG TS signal This mode is possible only when Eiden's OFDM modulator is connected.	
CONTINUANCE (PRBS, Word Pattern)	This mode is for the mode for the signals that is not buried the synchronization signal.	
Main Body		
External Dimensions	350 mm (W) x 180 mm (H) x 230 mm (D) * TBD	
Weight	Approximately 6 kg	

\* Basing on the engineering guidance by NHK Science & Technology Research Laboratories, this device is manufactured.