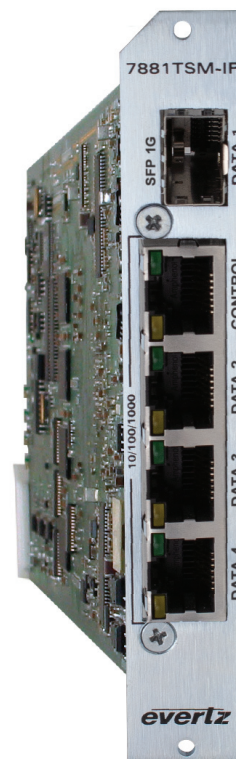# 7881TSM–IP
IP Transport Stream Monitor

The 7881TSM–IP remote probe is a complete solution for compressed network monitoring. By monitoring the MPEG Transport Stream at strategic points within the distribution network, and in conjunction with the industry–leading VistaLINK® PRO NMS (Network Management System), the 7881TSM–IP offers service providers the tools to continuously and effectively monitor their IP signals within any IPTV, satellite, terrestrial or cable network, ensuring reliable signal delivery.

The 7881TSM–IP can monitor up to 32x transport streams. It can monitor MPEG–2 or H.264 content and rapidly detect and separate encoder errors from network delivery errors, allowing the operator to act quickly and minimize downtime. Evertz' industry–leading VistaLINK® PRO NMS offers a new dimension to TS monitoring by enabling a graphical depiction of any measurement performed and a quick assessment of the different probe points in the system. The 7881TSM–IP probe system is an invaluable asset in any operational environment.

▶ Features & Benefits

- 3x 1GbE inputs
- IGMP v1, v2, v3 subscription and IP layer monitoring including MDI
- Real–time T–STD buffer analysis
- Transport Stream analysis:
  - Presence, bit rate analysis, table rate analysis
  - TR101290 level 1, level 2*, and partial level 3
- Complete TS and PID bitrate measurement from 100kb/s to 200MB/s with configurable limits
- Display of Transport Stream tree (PID tree view)
- Program properties (name, program ID, etc.)
- Video/audio/data component properties (PID, type, codec, bit rate, resolution, sampling rate, etc.)
- Matching of PID assignment with pre–defined PID list and TSID verification
- Fully integrated with Evertz' industry–leading VistaLINK® PRO NMS
- SNMP–enabled (control and alarms for monitoring)
- Complete customization of status view and error report in VistaLINK® PRO
- Record TS based on configurable triggers

Only PCR accuracy and PCR repetition rate supported at this time. No jitter measurement.

▶ Specifications

Inputs & Outputs:
- 3x RJ–45 10/100/1000GbE I/O for MPEG–2 TS over IP
- 1x 1GbE SFP (optical or copper)
- 1x RJ–45 for control

Network Management:
Control: SNMP

Electrical:
Voltage: +12V DC

Power: 23W

EMI/RFI: Complies with FCC Part 15 Class A EU EMC Directive

Physical:
Number of slots: 2

▶ Transport Stream Analysis

TR101290 P1		TR101290 P2		TR101290 P3 (DVB)		TR101290 P4 (ATSC)	
1.1	TS_sync_loss	2.1	Transport error	3.1	NIT_repetition	3.1	MGT_repetition
1.2	Sync_byte_error	2.2	CRC_error	3.2	NIT_error	3.2	TVCT_repetition
1.3	Pat_error	2.3	PCR_error	3.3	Unreferrenced_PID	3.3	CVCT_repetition
1.4	Continuity_count_error	2.4	PCR_accuracy_error	3.4	SDT_repetition	3.4	EIT_repetition
1.5	PMT_error	2.5	PTS_error	3.5	SDT_error	3.5	RRT_repetition
		2.6	CAT_error	3.6	EIT_repetition	3.6	STT_repetitiion
				3.7	EIT_error		
				3.8	RST_repetition		
				3.9	RST_error		
				3.10	TDT_repetition		
				3.11	TDT_repetition		

▶ Ordering Information

7881TSM–IP	Modular IP Transport Stream Monitor

Rear Plate Suffix:
+3RU — 3RU rear plate for use with 350FR, 7700FR–C, 7800FR or 7801FR multiframes

Enclosures:
350FR — Portable multiframe, holds 7x single–slot modules
7800FR — 3RU multiframe, holds 15x single–slot modules
7801FR — 1RU multiframe, holds 4x single–slot modules

SFP Interface Options:
SFPTR–RJ45–SGM–AV — SFP module for 10/100/1000 interface ports
SFP1G–TR13 — SFP optical transceiver, 1.25Gbs, 1310nm, SMF, 20km
SFP1G–TR15S — SFP optical transceiver, 1.25Gbs, 1550nm, SMF, 40km
SFP1G–TR15H — SFP optical transceiver, 1.25Gbs, 1550nm, SMF, 80km