

7880DM Series

Professional ATSC/DVB-T/T2/DVB-C/C2/ISDB-Tb/DVB-S/S2 Demodulators



The 7880DM series is a complete hardware based solution for demodulating digital terrestrial ATSC/8VSB/ ISDB-Tb , QAM/ DVBC/ DVB-C2 cable signals DTV signals or digital DVB-S/S2 satellite signals. With a modular form-factor, the 7880DM represents one of the highest density and most flexible solutions in the industry.

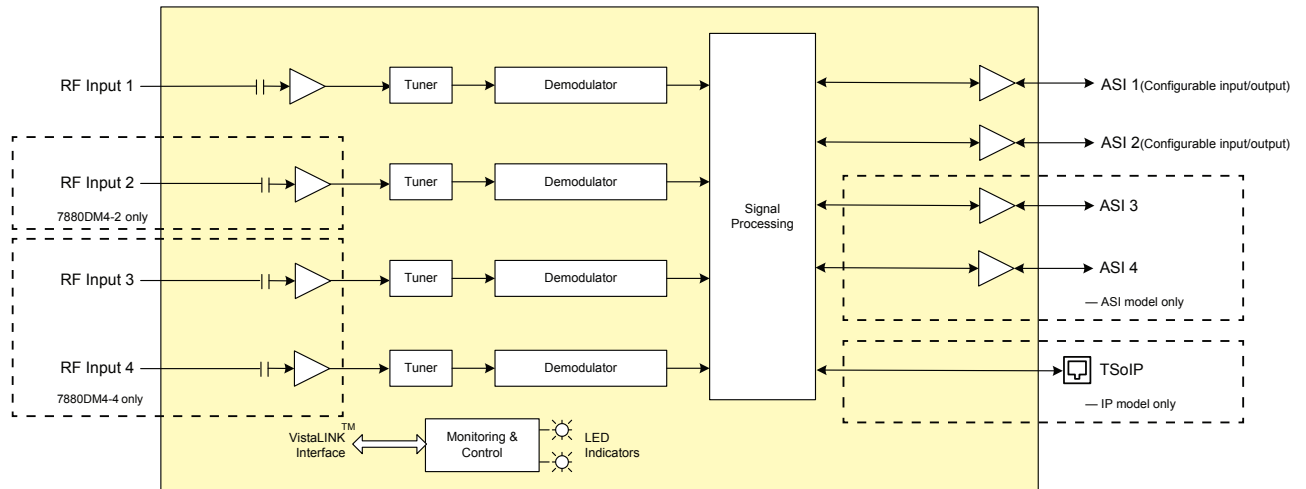
Applications include signal reception for satellite, cable, DTH and IPTV providers, or any other small to large head-end operators who need to receive and distribute local content. The 7880DM can provide ASI and IP output, ideal for turnaround, transcoding, transporting, monitoring or other applications where the received signal remains in the compressed domain. For baseband

output, the demodulator may be coupled with an Evertz decoder module, providing a full receiver solution.(for more info, check CRP-9000 platform for SDI decoding)

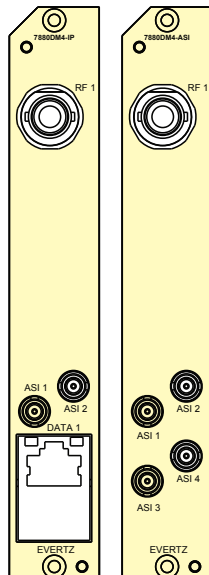
Monitoring parameters such as EsNo, RF Power, MER, BER and packet errors present a convenient solution for broadcasters and cable companies who wish to not only receive, but also remotely monitor signal quality. These parameters as well as full control of the demodulator are relayed over SNMP, for convenient remote access using Evertz' own VistaLINK® PRO SNMP monitoring and control package

► Features & Benefits

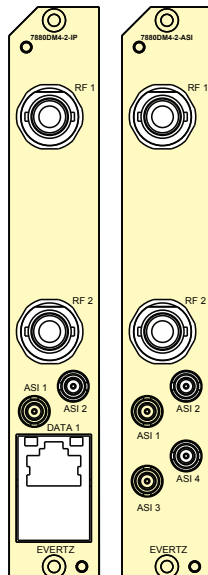
- Modular design, allowing flexible configurations along with easy system reconfiguration and service
- Up to four units may be mounted in the 7801FR 1RU chassis, capable of receiving 16 signals in 1RU
- Up to fourteen units may be mounted in the 7800FR 3RU chassis, capable of receiving 56 signals in 3RU
- Local control panel option available in 1RU frame
- Remote control panel option available in 3RU frame
- Future-proof with upgrade paths to support future modulation technologies.
- Standard support for advanced modulation schemes, including DVB-S2 with 16APSK and 32APSK (7880DM-LB version)
- Available two DVB-CI slots for conditional access modules (7880DM2-LB2 & 7880DM2-DVBC2 versions)
- Quad 8VSB tuners with tuning capabilities of pre-stored physical channels (7880DM-VSBQAM version)
- Quad DVB-T/T2 off-air or DVB-C/C2 cable signals (7880DM-DVBT/T2 version)
- Quad ISDBTb off-air signals (7880DM-ISDBT version)
- SMPTE 2022-1 and -2 compliant multiple TSoIP outputs per tuner
- Signal quality monitoring, including MER, BER and TR101- P1 errors
- Standard support for advanced transport stream processing including service filtering and output bitrate control
- Control through web-browser or SNMP using third-party application or Evertz 'own SNMP control and monitoring software
- Supports on-board Input auto-failover between various inputs including RF/ ASI/ or IP inputs
- Optional IP FEC encoding in output streams (for -IP models)
- Optional BISS and BISS-E decryption (7880DM-LB version)



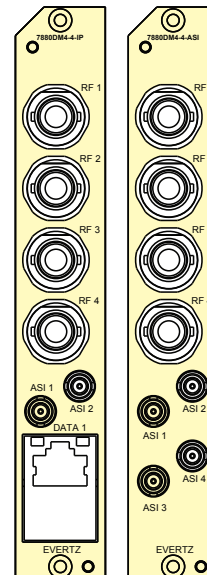
Single RF Input



Dual RF Input



Quad RF Input



The Complete Solution Provider



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Specifications

RF Input: Connector: F-Type BNC per IEC 61169-8 Annex A (with B75 option) Frequency: -LB: 950 to 2150MHz -ATSC/DVBT/DVBC/ISDBT: 50 to 860MHz Input Power: -LB: -20 to -60 dBm -ATSC/DVBT/DVBC/ISDBT: +40 to -40 dBmV per carrier Channel Bandwidth (-ATSC/DVBT/ISDBTb): 6MHz, 7MHz, 8MHz	For -ATSC version: 8VSB Demodulation Standard: ATSC Per A53 QAM Demodulation Standard: ITU-TJ.83 Annex B, QAM 64, 256 For -DVBC2/DVBT2/ISDBT2 version: Channel Bandwidth: 6MHz, 7MHz, 8MHz Sub Format: QAM16 - QAM256, QPSK Standard: DVB-T/T2, DVB-C/C2, ISDBTb (ITU-T J.83 Annex A and C)	Conditional Access Support for DVB Common Interface De-scrambling (7880DM2-LB2 & 7880DM2-DVBC2 versions): Number of DVB-CI slots: 2 Connector: PCMCIA dual slots Standard: DVB_CI EN50221 CA module: PC-Card type II Hot Plug Control: • SNMP over Ethernet via FC • Web browser via FC Monitored parameters (for -ATSC / -DVBT2 / ISDBT version): • Demodulator lock • MER/BER • Packet Errors • TR101 -P1 Errors Monitored parameters (for -LB version): • Demodulator lock • RF power • Es/N0 ratio • FEC activity
Modulation Support: For -LB version: Symbol Rate: Up to: 8PSK: 67 Msps 16APSK: 50 Msps 32APSK: 40 Msps	ASI Inputs/ Outputs: 2/4 Connector: Mini DIN 1.0/2.3 ASI ports are individually configurable to be either input or output TSolP Input/Output (-IP version only): Connector: RJ45, 10/100/1000Mbps Type: SMPTE 2022-1, -2 FEC: per SMPTE 2022 (Output only)	
Coding Rates: DVB-S QPSK: 1/2, 2/3, 3/4, 5/6, 7/8 DVB-S2 QPSK: 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 DVB-S2 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9, 9/10 DVB-S2 16APSK: 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 DVB-S2 32APSK: 3/4, 4/5, 5/6, 8/9, 9/10	Optional SMPE2022-1 FEC encoding with L&D following the following range (+FEC Option): • L*D ≤100 • 1 ≤L ≤20 • 4 ≤D ≤20 • if L < 4, then D = 4 always	
		Electrical: Voltage: +12V DC Power: <24W EMI/RFI: Complies with FCC Part 15, Class A EU EMC Directive

Signal Type	Part Number	Inputs		Outputs		ASI*	RJ-45	Frame Slots	DVB-CI Slot
		Number of RF	TSolP	Tuner/Demodulator	TSolP				
DVBS/S2	7880DM2-LB2-CA2-IP	2	2	2	2	2 DIN	1	1	2
	7880DM2-LB2-CA2-ASI	2	-	2	-	4 DIN	1	1	2
	7880DM4-LB-IP	1	4	4	4	2 DIN	1	1	-
	7880DM4-LB-ASI	1	-	4	-	4 DIN	1	1	-
	7880DM4-LB2-IP	2	4	4	4	2 DIN	1	1	-
	7880DM4-LB2-ASI	2	-	4	-	4 DIN	1	1	-
	7880DM4-LB4-IP	4	4	4	4	2 DIN	1	1	-
	7880DM4-LB4-ASI	4	-	4	-	4 DIN	1	1	-
8VSB/QAM	7880DM4-VSBQAM-IP	1	4	4	4	2 DIN	1	1	-
	7880DM4-VSBQAM-ASI	1	-	4	-	4 DIN	1	1	-
	7880DM4-VSBQAM2-IP	2	4	4	4	2 DIN	1	1	-
	7880DM4-VSBQAM2-ASI	2	-	4	-	4 DIN	1	1	-
	7880DM4-VSBQAM4-IP	4	4	4	4	2 DIN	1	1	-
	7880DM4-VSBQAM4-ASI	4	-	4	-	4 DIN	1	1	-
DVBT/T2	7880DM-DVBT/T2-ASI	2	-	1	-	4 DIN	-	-	-
	7880DM4-DVBT/T2-IP	4	4	4	4	2 DIN	1	1	-
	7880DM4-DVBT/T2-ASI	4	-	4	-	4 DIN	1	1	-
DVBC/C2	7880DM4-DVBC-IP	1	4	4	4	2 DIN	1	1	2
	7880DM2-DVBC2-CA2-IP	2	2	2	2	2 DIN	1	1	2
ISDBTb	7880DM4-ISDBT4-IP	4	4	4	4	2 DIN	1	1	-
	7880DM4-ISDBT4-ASI	4	-	4	-	4 DIN	1	1	-

* ASI ports are individually configurable to be either input or output

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Ordering Information

DVBS-S2 Version:

7880DM2-LB2-CA2-IP	DVB-S2/DVB-S Dual Demodulator with dual RF, single RJ-45 IP port and dual DVB-CI slot, single slot
7880DM2-LB2-CA2-ASI	DVB-S2/DVB-S Dual Demodulator with dual RF, quad din ASI and dual DVB-CI slot, single slot
7880DM4-LB-IP	DVB-S2/DVB-S Quad Demodulator with single RF, single RJ-45 IP port, single slot
7880DM4-LB-ASI	DVB-S2/DVB-S Quad Demodulator with single RF, quad din ASI, single slot
7880DM4-LB2-IP	DVB-S2/DVB-S Quad Demodulator with dual RF, single RJ-45 IP port, single slot
7880DM4-LB2-ASI	DVB-S2/DVB-S Quad Demodulator with single RF, quad din ASI, single slot
7880DM4-LB4-IP	DVB-S2/DVB-S Quad Demodulator with quad RF, single RJ-45 IP port, single slot
7880DM4-LB4-ASI	DVB-S2/DVB-S Quad Demodulator with single RF, quad din ASI, single slot

8VSB/ ATCI Version:

7880DM4-VSBQAM-IP	8VSB/ATSC Quad demod, single RF input, single RJ-45 IP port, single slot
7880DM4-VSBQAM-ASI	8VSB/ATSC Quad demod, single RF input, quad din ASI, single slot
7880DM4-VSBQAM2-IP	8VSB/ATSC Quad demod, dual RF input, single RJ-45 IP port, single slot
7880DM4-VSBQAM2-ASI	8VSB/ATSC Quad demod, dual RF input, quad din ASI, single slot
7880DM4-VSBQAM4-IP	8VSB/ATSC Quad demod, quad RF input, single RJ-45 IP port, single slot
7880DM4-VSBQAM4-ASI	8VSB/ATSC Quad demod, quad RF input, quad ASI, single slot

DVBT/T2 Version:

7880DM-DVBT/T2-ASI	Single DVB-T/T2 demodulator with dual RF inputs and ASI ports
7880DM4-DVBT/T2-IP	DVBT/T2 Quad demod, quad RF input, single RJ-45 IP port, single slot
7880DM4-DVBT/T2-ASI	DVBT/T2 Quad demod, quad RF input, quad din ASI, single slot

QAM & DVBC/C2 Version:

7880DM4-DVBC-IP	DVBC/C2/QAM Quad demod, single RF input, single RJ-45 IP port, single slot
7880DM2-DVBC2-CA2-IP	DVBC/C2 Dual demod, dual RF input, dual DVB-CI slot, single RJ-45 IP port, single slot

ISDBTb Version:

7880DM4-ISDBT4-IP	ISDBTb Quad demod, quad RF input, single RJ-45 IP port, single slot
7880DM4-ISDBT4-ASI	ISDBTb Quad demod, quad RF input, quad din ASI, single slot

Ordering Options

Rear Plate must be specified at time of order (Eg. Model +3RU)

+B75 +DBISS +FEC

75Ω, BNC connector for RF input
Software option to enable BISS and BISS-E decryption
Software option to enable Forward Error Correction Capability for IP output (for -IP and -IPASI models)

+SPTS +NORP

Software option to create Multiple SPTS of a transport stream
No individual rear panel

Rear Plate Suffix +3RU

3RU Rear Plate for use with 350FR, 7700FR-C, 7800FR, 7800FR-QT or 7801FR Multiframe

Enclosures

350FR

3RU Portable Multiframe which holds up to 7 single slot modules

7800FR

3RU Multiframe which holds up to 15 single slot modules

7800FR-QT

3RU Multiframe which holds up to 15 single slot module

7801FR

1RU Multiframe which holds up to 4 single or 2 dual slot modules

7801FR+HRDCP

1RU Multiframe with front control panel installed

Accessories

+781PS

Redundant power supply (optional)

7801FC

Frame controller module for use with 7801FRs