# **DMP900**

## Digital Media Platform







#### INTRODUCTION

The DMP900 is Wellav's most advanced product for service operators. It provides proven headend technology in a compact, 1RU chassis. With wide veriety of different input and output module options that can be combined as needed, it offers a true, comprehensive video delivery solution.

Whether it is for multiplexing, receiving, encoding, modulating, scrambling or descrambling applications, the DMP900 provides more capacity, flexibility and reliability while requiring less space, fewer connections and less power.

#### **KEY FEATURES**

- Any input to any output capability
- Dense and modular design: 1RU with up to 6 modules
- Supports up to 6Gbps video multiplexing and TS stream multiplexing/grooming
- Stream/Port/Service level redundancy
- Supports EIT multiplexing and EPG/SI insertion (both DVB and ATSC standard)
- Hot swappable, dual, redundant power supply
- Easy configuration tools: Web-UI and SNMP
- Easy upgrades to support new technologies by swapping modules
- Low power consumption and high reliability with MTBF ≥100,000 hours
- Multi-function: multiplexing, receiving, encoding, modulation, scrambling and more







#### **APPLICATIONS**

#### Encoding/Transcoding

- Up to 10 SD or HD programs of encoding
- Multi-audio MPEG/AAC/AC3 encoding

#### Stream Processing

- Up to 6Gbps processing (approx. 1500 programs)
- 24 ASI ports of multiplexing
- 20 ports ASI to IP gateway
- Internal multiplexing or pass-through capabilities
- EIT multiplexing
- Supports SI and EPG data insertion

#### Receiving/Digital-Turn-Around

- 20 channels or frequencies of DVB-S/S2/C/T/T2, ISDB-T and 8VSB receiving
- Descramble, remultiplex and pass-through to ASI, IP or RF output

#### Modulation

- Up to 48 channels of QAM modulating
- 16 channels of trans-modulation to QAM (from DVB-S/S2/T/T2, ISDB-T or 8VSB)

### **SPECIFICATIONS**

Chassis		
Capacity	6Gbps (approx. 1500 programs)	
Slot Quantity	6 hot-swappable slots	
Multiplexing		
Routing	Any input to any output	
Table Supported	SI/PSI/PSIP	
PID Processing	Pass-through, remapping, filtering	
EIT Processing	Re-multiplexing and pass-through	
External Data	EPG and SI insertion	
Management		
Hardware Interface	1 x RJ45 (100Mbps)	
	LED indicators	
User Interface .	LCD screen	
	Front panel control	
	Web UI & NMS	
	SNMP (monitoring only)	
	WMS1 (Wellav Centralized Manager for N+M backup, optional)	
Physical & Environment		
Input Voltage	90~260 VAC	
Dual Power Supply	Support, hot-swappable	
Power Consumption	Max. 120W (fully loaded)	
Chassis Dimension	480mm x 44mm x 490mm (WxHxD), 1RU	
Operating Temperature	0°C~50°C	
Storage Temperature	-10°C~70°C	
Operating Humidity	<95%	
MTBF	≥100,000 hours	





## ORDER INFORMATION

Cheasis  DMP90C-Chassis- Standard RU chassis with 6 slots, AC redundant how-swappable dual power supply  DMP90C-Chassis- Standard RU chassis with 6 slots, 48V DC redundant how-swappable dual power supply  Receiver Module  DVBS2 DVB-S7S2 receiving module (4CH, or 2CH with 16/32APSK), supports multi-stream receiving  DVBC DVB-C receiving module (4CH, Annex AC)  DVBC-O1 DVB-C receiving module (4CH, Annex AC)  DVBC-O1 DVB-C receiving module (4CH)  SDBT ISDB-T receiving module (4CH)  SCBT ISDB-T receiving module (2 CAM slots)  CLBISS Bis descrember, 16 x TS  Scrambler+ DVB scrambler, CAS version (150 programs)  VO Module  TSIP TSIP With SFP (44In 32Out)  T	Model	Description
DMP900-Chassis-DC Standard 1RU chassis with 6 slots, 48V DC redundant how-swappable dual power supply  Receiver Module  DVBS2 DVB-S/SZ receiving module (4CH, or 2CH with 16/32APSK), supports multi-stream receiving  DVBC DVBC-C receiving module (4CH, Annex A/C)  DVBC-01 DVB-C receiving module (4CH, Annex A/C)  DVBC-01 DVB-C receiving module (4CH)  ISDBT ISDB-T receiving module (4CH)  ISDB-T receiving module (4CH)  ISDB-T receiving module (4CH)  ISDB-T receiving module (4CH)  De-/Scrambler Module  C1 Common interface module (2 CAM slots)  C1-BISS Biss descramber, 16 x TS  Scrambler+ DVB scrambler, CAS version (150 programs)  I/O Module  TSIP TSIP with SFP (64In 32Out)  TSIP TSIP is TSIP with SFP (64In 32Out)  TSIP ASIN-2 ASI module (2 x SFP+2 x RJ45, 256In256Out@SFTS or 128In128Out@MPTS)  ASIN-2 ASI module (5 In or Out)  IPASI PIPASI module, with 2 x RJ45+2 x ASI ports (64In32Out)  SMTCH ASI switch module, 5CH ASI switch module  Modulator Module  Modulator Module  Modulator Module  AMM QAM modulator (8CH, Annex A/C)  SCAM QAM modulator (8CH, Annex A/C, w/S-crambler, w/o IP)  IQAMv2-01 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAMv2-02 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-03 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAMv2-05 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAMv2-06 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAMv2-07 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAMv2-08 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM		
Receiver Module  DVBS2 DVB-S/S2 receiving module (ACH, or 2CH with 16/32APSK), supports multi-stream receiving  DVBC DVB-C receiving module (ACH, Annex A/C)  DVBC-O1 DVB-C receiving module (ACH, Annex A/C)  BVSB 8VSB AVSB/ATSC receiving module (ACH)  ISDBT ISDB-T receiving module (ACH)  ISDBT ISDB-T receiving module (ACH)  ISDB-T receiving module (ACH)  ISDB-T receiving module (ACH)  De-/Scrambler Module  CI Common interface module (2 CAM slots)  CL-BISS Biss descrambler, 16 x TS  Scrambler+ DVB scrambler, CAS version (150 programs)  I/O Module  TSIP with SFP (64In 32Out)  TSIP module (2 x SFP+2 x R145, 256In256Out@SPTS or 128In128Out@MPTS)  ASIva ASIva ASI module, with 2 x R145+2 x ASI ports (64In32Out)  IPASI Indule (3 in or Out)  IPASI Indule (3 in or Out)  IPASI Indule (3 in or Out)  IPASI Module (3 in or Out)  IPASI PASI Module, with 2 x R145+2 x ASI ports (64In32Out)  SWITCH ASI switch module, SCH ASI switch module  Modulator Module  QAM QAM modulator (8CH, Annex A/C, w/Scrambler, w/o IP)  IQAM/2 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAM/2-01 Non-adjacent QAM modulator (16 x QAM, Annex B)  QAM/2-02 Non-adjacent QAM modulator (16 x QAM, Annex B)  QAM/2-03 Non-adjacent QAM modulator (16 x QAM, Annex B)  QAM/2-04 Non-adjacent QAM modulator (16 x QAM, Annex B)  QAM/2-05 OFDM OFDM modulator (4CH, Annex B)  QAM/2-06 OFDM modulator (4CH, Annex B)  QAM/2-07 OFDM modulator (4CH, Annex B)  QAM/2-08 OFDM modulator (4CH, Annex B)  QAM/2-09 OFDM modulator	DMP900-Chassis	Standard 1RU chassis with 6 slots, AC redundant how-swappable dual power supply
DVBS2 DVB-S/S2 receiving module (4CH, or 2CH with 16/32APSK), supports multi-stream receiving DVBC DVB-C receiving module (4CH, Annex A/C) DVB-C11 DVB-C receiving module (4CH, Annex B) 8VSB 8VSB/ATSC receiving module (4CH) SDBT ISDBT ISDB-T receiving module (4CH) DP-Scrambler Module CI Common interface module (2 CAM slots) CI-BISS Biss descramber, 16 x TS Scrambler+ DVB scrambler, CAS version (150 programs) V/O Module TSIP TSIP with SFP (64In 32Out) TSIP TSIP module (2 x SFP+2 x RJ45, 256In256Out@SPTS or 128In128Out@MPTS) ASiv2 ASI module (3 in or Out) IPASI IPASI Module, with 2 x RJ45+2 x ASI ports (64In32Out) SWITCH ASI switch module, 5CH ASI switch module Modulator Module  CAM OAM OAM modulator (8CH, Annex A/C, w/Scrambler, w/o IP) ICAMv-2 O1 Non-adjacent OAM modulator (8 x QAM, Annex A/C) ICAMv-2 O1 Non-adjacent OAM modulator (8 x QAM, Annex B) ICAMv-2 O3 Non-adjacent OAM modulator (16 x QAM, Annex B) ICAMv-2 O4 Non-adjacent O	DMP900-Chassis-DC	Standard 1RU chassis with 6 slots, 48V DC redundant how-swappable dual power supply
DVBC DVB-C receiving module (4CH, Annex A/C)  DVBC-01 DVB-C receiving module (4CH, Annex B)  8VSB 8VSB/ATSC receiving module (4CH)  ISDB-T receiving module (4CH)  De/Scrambler Module  CI Common interface module (2 CAM slots)  CI-BISS Biss descramber, 16 x TS  Scrambler+ DVB scrambler, CAS version (150 programs)  I/O Module  TSIP TSIP TSIP module (2 x SPP+2 x RJ45, 256in256Out@SPTS or 128in128Out@MPTS)  ASiv2 ASI module (2 x SPP+2 x RJ45, 256in256Out@SPTS or 128in128Out@MPTS)  ASiv2 ASI module (5 In or Out)  IPASI IPASI Module, with 2 x RJ45+2 x ASI ports (64In32Out)  SWITCH ASI switch module, SCH ASI switch module  Modulator Module  QAM Modulator (8CH, Annex A/C, w/Scrambler, w/o IP)  IQAMv2 Non-adjacent QAM modulator (8 x QAM, Annex A/C)  IQAMv2-01 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAMv2-02 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-05 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-06 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-07 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-08 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-09 Non-adja	Receiver Module	
DVBC-01 DVB-C receiving module (4CH, Annex B)  8VSB 8VSB/ATSC receiving module (4CH)  ISDBT ISDB-T receiving module (4CH)  De-/Scrambler Module  CI Common interface module (2 CAM slots)  CI-BISS Biss descramber, 16 x TS  Scrambler+ DVB scrambler, CAS version (150 programs)  I/O Module  TSIP TSIP with SFP (64th 32CUt)  TSIP ASIN module (2 x SFP+2 x R,145, 256in 256Out @SPTS or 128in 128Out @MPTS)  ASIN PASI module (2 x SFP+2 x R,145, 256in 256Out @SPTS or 128in 128Out @MPTS)  SWITCH ASI switch module, with 2 x R,145+2 x ASI ports (64in 32Out)  SWITCH ASI switch module, SCH ASI switch module  Modulator Module  Modulator Module  OAM QAM modulator (BCH, Annex A/C, w/Scrambler, w/o IP)  IQAM/2 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAM/2-01 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAM/2-02 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAM/2-03 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAM/2-04 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAM/2-05 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-06 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-07 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-08 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IQAM/2-09 Non-adjace	DVBS2	DVB-S/S2 receiving module (4CH, or 2CH with 16/32APSK), supports multi-stream receiving
BVSB BVSB/ATSC receiving module (4CH) ISDBT ISDB-T receiving module (4CH)  De-/Scrambler Module  CI Common interface module (2 CAM slots) CI-BISS Biss descrambler, 16 x TS  Scrambler+ DVB scrambler, CAS version (150 programs)  I/O Module  TSIP DVB scrambler, CAS version (150 programs)  I/O Module  TSIP TSIP module (2 x SFP+2 x R.145, 256in256Our@SPTS or 128in128Out@MPTS)  ASIN2 ASI module (5 in or Out)  IP/ASI module, with 2 x R.145+2 x ASI ports (64in32Out)  SWITCH ASI switch module, SCH ASI switch module  Modulator Module  OAM OAM modulator (8CH, Annex A/C)  SOAM QAM modulator (8CH, Annex A/C)  IOAMV2 Non-adjacent QAM modulator (8 x QAM, Annex A/C)  IOAMV2-01 Non-adjacent QAM modulator (8 x QAM, Annex B)  IOAMV2-02 Non-adjacent QAM modulator (16 x QAM, Annex B)  IOAMV2-03 Non-adjacent QAM modulator (12 x QAM, Annex B)  IOAMV2-04 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-04 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-05 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-06 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-07 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-08 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-09 Non-adjacent QAM modulator (18 x QAM, Annex B)  IOAMV2-09 Non-adjacent QAM modulator (18 x QAM, Annex	DVBC	DVB-C receiving module (4CH, Annex A/C)
ISDBT ISDBT receiving module (4CH)  De-/Scrambler Module  CI Common interface module (2 CAM slots)  CI-BISS Biss descramber, 16 x TS  Scrambler+ DVB scrambler, CAS version (150 programs)  I/O Module  TSIP TSIP with SFP (64In 32Out)  TSIP+ TSIP module (2 x SFP+2 x RJ45, 256In256Out@SPTS or 128In128Out@MPTS)  ASIv2 ASI module (5 in or Out)  IPASI IP/ASI module, with 2 x RJ45+2 x ASI ports (64In32Out)  SWITCH ASI with module, 5CH ASI switch module  Modulator Module  UAMM QAM modulator (8CH, Annex A/C)  SQAM QAM modulator (8CH, Annex A/C, w/Scrambler, w/o IP)  IQAMv2 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAMv2-01 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-02 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-03 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-05 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-06 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-07 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-08 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMy2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMy2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMy2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMy2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMy2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMy2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMy2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMy2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMy2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMy2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMy2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMy2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMy2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMy2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMy2-09 Non-adjacent QAM modulat	DVBC-01	DVB-C receiving module (4CH, Annex B)
CI Common interface module (2 CAM slots)  CI-BISS Biss descramber, 16 x TS  Scrambler+ DVB scrambler, CAS version (150 programs)  I/O Module  TSIP TSIP with SFP (64In 32Out)  TSIP+ ASI module (2 x SFP+2 x RJ45, 256in256Out@SPTS or 128In128Out@MPTS)  ASI module (5 In or Out)  IPASI PASI module, with 2 x RJ45+2 x ASI ports (64In32Out)  SWITCH ASI switch module, 5CH ASI switch module  Modulator Module  CAM QAM modulator (8CH, Annex A/C)  SQAM QAM modulator (8CH, Annex A/C, w/Scrambler, w/o IP)  IQAMv2 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAMv2-01 Non-adjacent QAM modulator (18 x QAM, Annex A/C)  IQAMv2-02 Non-adjacent QAM modulator (12 x QAM, Annex A)  IQAMv2-03 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-05 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-06 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-07 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-08 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-09 Non-adjacent QAM modulator (12	8VSB	8VSB/ATSC receiving module (4CH)
CI Common interface module (2 CAM slots)  CI-BISS Biss descramber, 16 x TS  Scrambler+ DVB scrambler, CAS version (150 programs)  I/O Module  TSIP TSIP With SFP (64In 32Out)  TSIP+ TSIP module (2 x SFP+2 x RJ45, 256In256Out@SPTS or 128In128Out@MPTS)  ASIv2 ASI module (5 In or Out)  IP/ASI module, with 2 x RJ45+2 x ASI ports (64In32Out)  SWITCH ASI switch module, SCH ASI switch module  Modulator Module  QAM QAM modulator (8CH, Annex A/C)  QAM QAM modulator (8CH, Annex A/C, w/Scrambler, w/o IP)  IQAMv2-01 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAMv2-02 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-03 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (12 x QAM, Annex B)  QAM QAM modulator (4CH, Annex B)  OFDM OFDM modulator (4CH, MrScrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG112 (support)  ENZSD1-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG112 (support), AAC (support), AC3 (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG112 (support), AAC (optional), AAC (optional)	ISDBT	ISDB-T receiving module (4CH)
CI-BISS Biss descramber, 16 x TS  Scrambler+ DVB scrambler, CAS version (150 programs)  I/O Module  TSIP TSIP with SFP (64In 32Out)  TSIP+ TSIP module (2 x SFP+2 x R.145, 256In256Out@SPTS or 128In128Out@MPTS)  ASIv2 ASI module (5 In or Out)  IPASI IP/ASI module, with 2 x R.145+2 x ASI ports (64In32Out)  SWITCH ASI switch module SCH ASI switch module  Modulator Module  QAM QAM modulator (8CH, Annex A/C)  QAM QAM modulator (8CH, Annex A/C, w/Scrambler, w/o IP)  IOAMv2 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAMv2-01 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-02 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (8 x QAM, Annex B)  QAM Modulator (4CH, Annex B)  OFDM OFDM modulator (4CH, w/Scrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG112 (support)  EN2SDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG112 (support), AAC (support), AC3 (support)  Decoder Module	De-/Scrambler Module	
Scrambler+ DVB scrambler, CAS version (150 programs)  I/O Module  TSIP TSIP with SFP (64In 32Out)  TSIP+ TSIP module (2 x SFP+2 x RJ45, 256In256Out@SPTS or 128In128Out@MPTS)  ASIv2 ASI module, SIn or Out)  IPASI IPASI IPASI module, with 2 x RJ45+2 x ASI ports (64In32Out)  SWITCH ASI switch module, 5CH ASI switch module  Modulator Module  OAM OAM modulator (8CH, Annex A/C)  SQAM QAM modulator (8CH, Annex A/C, w/Scrambler, w/o IP)  IOAMv2 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IOAMv2-01 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IOAMv2-02 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-03 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (8 x QAM, Annex B)  OFDM QFDM modulator (4CH, Annex B)  OFDM QFDM modulator (4CH, W/Scrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  ENZSDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	CI	Common interface module (2 CAM slots)
TSIP TSIP with SFP (64In 32Out) TSIP+ TSIP module (2 x SFP+2 x RJ45, 256In256Out@SPTS or 128In128Out@MPTS)  ASIv2 ASI module (5 In or Out)  IPASI IPASI IPASI Module, with 2 x RJ45+2 x ASI ports (64In32Out)  SWITCH ASI switch module, SCH ASI switch module  Modulator Module  QAM QAM modulator (8CH, Annex A/C)  SQAM QAM modulator (8CH, Annex A/C, w/Scrambler, w/o IP)  IQAMv2 Non-adjacent QAM modulator (6 x QAM, Annex A/C)  IQAMv2-01 Non-adjacent QAM modulator (6 x QAM, Annex A/C)  IQAMv2-02 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAMv2-03 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (8 x QAM, Annex B)  QAM OFDM modulator (4CH, Annex B)  OFDM OFDM OFDM modulator (4CH), w/Scrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  EN2SDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	CI-BISS	Biss descramber, 16 x TS
TSIP TSIP with SFP (64In 32Out)  TSIP+ TSIP module (2 x SFP+2 x RJ45, 256In256Out@SPTS or 128In128Out@MPTS)  ASiv2 ASI module (5 In or Out)  IPASI IP/ASI module, with 2 x RJ45+2 x ASI ports (64In32Out)  SWITCH ASI switch module, 5CH ASI switch module  Modulator Module  OAM QAM modulator (8CH, Annex A/C)  SQAM QAM modulator (8CH, Annex A/C, w/Scrambler, w/o IP)  IQAMv2 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAMv2-01 Non-adjacent QAM modulator (8 x QAM, Annex B)  IQAMv2-02 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-03 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (8 x QAM, Annex B)  OFDM QFDM modulator (4CH, Annex B)  OFDM OFDM Modulator (4CH, W/Scrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  EN2SDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AC3 (support), AC3 (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	Scrambler+	DVB scrambler, CAS version (150 programs)
TSIP+ TSIP module (2 x SFP+2 x RJ45, 256In256Out@SPTS or 128In128Out@MPTS)  ASIv2 ASI module (5 In or Out)  IPASI IPASI module, with 2 x RJ45+2 x ASI ports (64In32Out)  SWITCH ASI switch module, SCH ASI switch module  Modulator Module  QAM QAM modulator (8CH, Annex A/C)  SQAM QAM modulator (8CH, Annex A/C, w/Scrambler, w/o IP)  IQAMv2 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAMv2-01 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAMv2-02 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-03 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (8 x QAM, Annex B)  QAMB QAM modulator (4CH, Annex B)  OFDM OFDM modulator (4CH, w/Scrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  ENZSDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), ACS (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	I/O Module	
ASIv2 ASI module (5 In or Out)  IPASI IPASI module, with 2 x RJ45+2 x ASI ports (64In32Out)  SWITCH ASI switch module, 5CH ASI switch module  Modulator Module  QAM QAM modulator (8CH, Annex A/C)  SQAM QAM modulator (8CH, Annex A/C, w/Scrambler, w/o IP)  IQAMv2 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAMv2-01 Non-adjacent QAM modulator (8 x QAM, Annex A/C)  IQAMv2-02 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-03 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (8 x QAM, Annex B)  QAMB QAM modulator (4CH, Annex B)  OFDM OFDM modulator (4CH, w/Scrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  EN2SDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), ACC (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	TSIP	TSIP with SFP (64In 32Out)
IP/ASI module, with 2 x RJ45+2 x ASI ports (64In32Out)  SWITCH ASI switch module, 5CH ASI switch module  Modulator Module  QAM QAM modulator (8CH, Annex A/C)  SQAM QAM modulator (8CH, Annex A/C, w/Scrambler, w/o IP)  IQAMv2 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAMv2-01 Non-adjacent QAM modulator (8 x QAM, Annex A/C)  IQAMv2-02 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-03 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (8 x QAM, Annex B)  QAMB QAM modulator (4CH, Annex B)  OFDM OFDM modulator (4CH, W/Scrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  EN2SDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	TSIP+	TSIP module (2 x SFP+2 x RJ45, 256In256Out@SPTS or 128In128Out@MPTS)
SWITCH ASI switch module, 5CH ASI switch module  Modulator Module  QAM QAM modulator (8CH, Annex A/C)  SQAM QAM modulator (8CH, Annex A/C, w/Scrambler, w/o IP)  IQAMv2 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAMv2-01 Non-adjacent QAM modulator (8 x QAM, Annex A/C)  IQAMv2-02 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-03 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (8 x QAM, Annex B)  QAMB QAM modulator (4CH, Annex B)  OFDM OFDM modulator (4CH, w/Scrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  EN2SDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	ASIv2	ASI module (5 In or Out)
Modulator Module  QAM Modulator (8CH, Annex A/C)  SQAM QAM modulator (8CH, Annex A/C, w/Scrambler, w/o IP)  IQAMv2 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAMv2-01 Non-adjacent QAM modulator (8 x QAM, Annex A/C)  IQAMv2-02 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-03 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (8 x QAM, Annex B)  QAMB QAM modulator (4CH, Annex B)  OFDM OFDM modulator (4CH, W/Scrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  EN2SDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	IPASI	IP/ASI module, with 2 x RJ45+2 x ASI ports (64In32Out)
QAM modulator (8CH, Annex A/C)  SQAM QAM modulator (8CH, Annex A/C, w/Scrambler, w/o IP)  IQAMv2 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAMv2-01 Non-adjacent QAM modulator (8 x QAM, Annex A/C)  IQAMv2-02 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-03 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (8 x QAM, Annex B)  QAMB QAM modulator (4CH, Annex B)  OFDM OFDM modulator (4CH, w/Scrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  EN2SDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	SWITCH	ASI switch module, 5CH ASI switch module
SQAM QAM modulator (8CH, Annex A/C, w/Scrambler, w/o IP)  IQAMv2 Non-adjacent QAM modulator (16 x QAM, Annex A/C)  IQAMv2-01 Non-adjacent QAM modulator (8 x QAM, Annex A/C)  IQAMv2-02 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-03 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (8 x QAM, Annex B)  QAMB QAM modulator (4CH, Annex B)  OFDM OFDM modulator (4CH)  SOFDM OFDM modulator (4CH, w/Scrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  EN2SDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	Modulator Module	
IQAMv2-01 Non-adjacent QAM modulator (16 x QAM, Annex A/C) IQAMv2-02 Non-adjacent QAM modulator (16 x QAM, Annex B) IQAMv2-03 Non-adjacent QAM modulator (12 x QAM, Annex B) IQAMv2-04 Non-adjacent QAM modulator (8 x QAM, Annex B) IQAMv2-04 Non-adjacent QAM modulator (8 x QAM, Annex B) IQAMv2-04 Non-adjacent QAM modulator (8 x QAM, Annex B) IQAMB QAM modulator (4CH, Annex B) OFDM OFDM modulator (4CH, W.Scrambler, w/o IP) Incoder Module INAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support) INSUBJI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support) Decoder Module Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	QAM	QAM modulator (8CH, Annex A/C)
IQAMv2-01 Non-adjacent QAM modulator (8 x QAM, Annex A/C) IQAMv2-02 Non-adjacent QAM modulator (16 x QAM, Annex B) IQAMv2-03 Non-adjacent QAM modulator (12 x QAM, Annex B) IQAMv2-04 Non-adjacent QAM modulator (8 x QAM, Annex B) QAMB QAM modulator (4CH, Annex B) OFDM OFDM modulator (4CH) SOFDM OFDM modulator (4CH, w/Scrambler, w/o IP) Encoder Module ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support) EN2SDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support) Decoder Module Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	SQAM	QAM modulator (8CH, Annex A/C, w/Scrambler, w/o IP)
IQAMv2-02 Non-adjacent QAM modulator (16 x QAM, Annex B)  IQAMv2-03 Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (8 x QAM, Annex B)  QAMB QAM modulator (4CH, Annex B)  OFDM OFDM modulator (4CH)  SOFDM OFDM modulator (4CH, w/Scrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  EN2SDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)  Decoder Module  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	IQAMv2	Non-adjacent QAM modulator (16 x QAM, Annex A/C)
Non-adjacent QAM modulator (12 x QAM, Annex B)  IQAMv2-04 Non-adjacent QAM modulator (8 x QAM, Annex B)  QAMB QAM modulator (4CH, Annex B)  OFDM OFDM modulator (4CH)  SOFDM OFDM modulator (4CH, w/Scrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  EN2SDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	IQAMv2-01	Non-adjacent QAM modulator (8 x QAM, Annex A/C)
Non-adjacent QAM modulator (8 x QAM, Annex B)  QAMB QAM modulator (4CH, Annex B)  OFDM OFDM modulator (4CH)  SOFDM OFDM modulator (4CH, w/Scrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  EN2SDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	IQAMv2-02	Non-adjacent QAM modulator (16 x QAM, Annex B)
QAMB QAM modulator (4CH, Annex B)  OFDM OFDM modulator (4CH)  SOFDM OFDM modulator (4CH, w/Scrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  EN2SDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support)  EN2SDI-2Hv301 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	IQAMv2-03	Non-adjacent QAM modulator (12 x QAM, Annex B)
OFDM OFDM modulator (4CH)  SOFDM OFDM modulator (4CH, w/Scrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  EN2SDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support)  EN2SDI-2Hv301 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	IQAMv2-04	Non-adjacent QAM modulator (8 x QAM, Annex B)
SOFDM OFDM modulator (4CH, w/Scrambler, w/o IP)  Encoder Module  ENAUDIO 4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  EN2SDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support)  EN2SDI-2Hv301 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	QAMB	QAM modulator (4CH, Annex B)
Encoder Module  ENAUDIO  4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  EN2SDI-2Hv300  H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support)  EN2SDI-2Hv301  H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)  Decoder Module  Decoder-AV  Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	OFDM	OFDM modulator (4CH)
ENAUDIO  4CH audio encoder module, support RCA, balanced and unbalanced XLR or unbalanced AES/EBU input connector with designated adaptor cable, MPEG1L2 (support)  EN2SDI-2Hv300  H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support)  EN2SDI-2Hv301  H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)  Decoder Module  Decoder-AV  Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	SOFDM	OFDM modulator (4CH, w/Scrambler, w/o IP)
connector with designated adaptor cable, MPEG1L2 (support)  EN2SDI-2Hv300 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support)  EN2SDI-2Hv301 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	Encoder Module	
EN2SDI-2Hv301 H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)  Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	ENAUDIO	
Decoder Module  Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	EN2SDI-2Hv300	H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support)
Decoder-AV Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)	EN2SDI-2Hv301	H.264/MPEG-2 encoder, 2 SD/HD, SDI/CVBS, teletext encoding, MPEG1L2 (support), AAC (support), AC3 (support)
	Decoder Module	
The second secon	Decoder-AV	Decoding module (2 HD or 4 SD, CVBS), MPEG1L2 (support), AC3 (optional), AAC (optional)
Decoder-CCVZ Decoding module (2CH, SD/HD, SDI/HDMI), with CC (100T chipset), MPEG1L2 (support), AC3 (optional), AAC (optional)	Decoder-CCV2	Decoding module (2CH, SD/HD, SDI/HDMI), with CC (100T chipset), MPEG1L2 (support), AC3 (optional), AAC (optional)