Receiver Card

AG 2600 openGear® Module

SATELLITE, DVB-T/T2, IP, ASI, VSB,
OR QAM RECEIVER WITH ASI AND IP OUT

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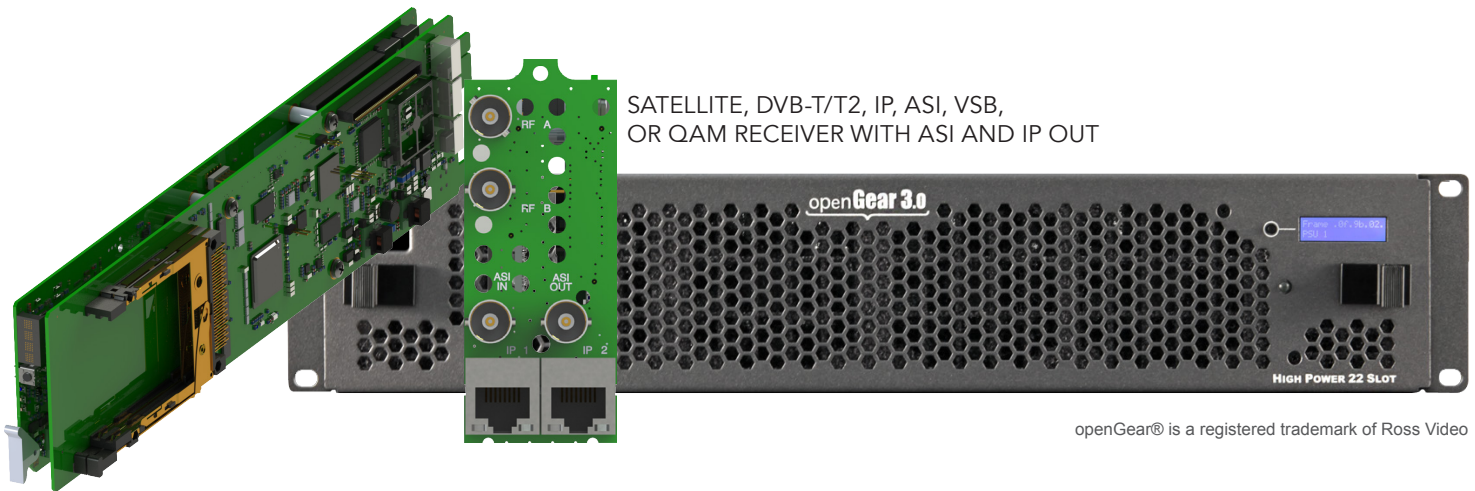
OVERVIEW

The AG 2600 receiver card leverages the DVB-S2, IP, 8VSB/QAM-B, DVB-T/T2/C/C2/ISDB-T, dual DVB-CI, and ASI designs from Sencore's newest receiver decoder cards to provide a cost effective multi-channel reception and descrambling platform.

The card integrates into the industry-standard 2RU openGear® OG-3 frame, supporting up to 10 receiver/descrambler pairs per chassis. The AG 2600 is also configurable without the DVB-CI option, and with an optional BISS descrambling support, so it can be matched to any reception infrastructure.

The product is ideal for providing satellite or terrestrial feeds for IP network distribution or integrated transcode infrastructure. Optional PID filtering on the IP output can generate up to 10 MPTS or SPTS outputs from an MPTS input.

Finally, the receiver can be configured with ASI and IP interfaces only for simple turn-around, descrambling, and filtering operations.

Hot swappable cards provide for effortless system expansion, while full SNMP and syslog interfaces and an HTTP-based API support quick and easy integration into multichannel systems. For individual operators, the product features an easy to use web GUI that will be immediately familiar to users of previous Sencore IRDs.

KEY FEATURES

- Extensive automation support via SNMP status, configuration, and traps, HTTP-based APIs, and Syslog
- Shared software and feature-set with Sencore 1RU receivers ensure reliability and interoperability
- Built-in ASI and IP I/O for maximum flexibility
- Available RF and descrambling modules:
  √ DVB-S/S2 Interface with Optional Dual DVB-CI
  √ DVB-T/T2/C/C2/ISDB-T Interface
  √ 8VSB/QAM-B Receiver Designed for A74
  √ Codecs auto-detected and switchable on-the-fly
- Failover between any two inputs
- Dual, mirrored TS over IP transmission
- Built-in BISS Mode 1, Mode E, and Multi-key
- Intuitive, straightforward web interface

APPLICATIONS

- **Satellite Reception and Descrambling**
  Receive up to ten transponders in 2RU and descramble via dual DVB-CI slots or BISS 1/E. Generate IP and ASI outputs of the full transport stream or a filtered subset.

- **Ingest Feeds for Linear OTT Transcoding**
  Generate up to 10 SPTS multicasts from an incoming distribution feed for downstream, server-based transcoding systems.

- **Capture Local Terrestrial Channels for Backhaul**
  Receive 8VSB signals and output as IP for fiber backhaul to a remote site. Filter the broadcast stream to transmit only HD or SD services.

- **Convert between ASI and IP**
  Connect old and new broadcast equipment while performing simple transport manipulation such as filtering or descrambling.

SPECIFICATIONS
Receiver Card AG 2600

AVAILABLE BASE MODULES

AG 26000	**Processing Card with Built-in ASI I/O**
AG 26027	**Processing Card with Built-in ASI I/O and Dual Gigabit Ethernet Ports**

ASI INPUT/OUTPUT

ASI Input:	1x 75Ω BNC
ASI Output:	1x 75Ω BNC
Supported Bitrate:	250 Kbps to 200 Mbps

IP INPUT/OUTPUT (IF EQUIPPED)

Physical Interface:	2x RJ45, 10/100/1000 Auto-Negotiate
Input Format:	2x UDP or RTP Streams
	Constant Bitrate or Null-Stripped
	RTP Header Extensions Supported
	SMPTE 2022/CoP3 FEC Supported
Output Format:	10x UDP Streams
MPE De-encapsulation:	Up to 2 PIDs
	Up to 60 Mbps per MPE PID
IP Encapsulation:	1 to 7 TS Packets per IP Packet
Addressing:	Unicast or Multicast
IGMP compatibility:	Version 1, 2 & 3
Per TS Bitrate:	250 Kbps to 200 Mbps

MPEG/IP FEC Output License   AG 26925

Additional Output Formats:	Adds RTP & SMPTE 2022/CoP3 FEC on 2x Transmit Instances

OPTIONAL BASE MODULE FUNCTIONALITY

BISS Descrambling License   MRD 26921

Supported Modes:	Mode 1, Mode E, Injected ID
Multi-BISS Support:	Up to 12 Separate Keys

PID/Service Filtering License   MRD 26928

Filtering:	10 Independent TS (MPTS or SPTS) created; output via IP or ASI
Table Regeneration (DVB Mode):	PAT regeneration
Table Pass-through (DVB Mode):	PMT, CAT, NIT pass-through
Table Regeneration (DVB Mode):	PAT, SDT
Table Pass-through (DVB Mode):	PMT, CAT, NIT, EIT, RST, TDT, TOT

DVB-S/S2 INPUT MODULE   AG 26116

Physical Interface:	2x 75Ω BNC
Frequency Range:	950-2150 MHz
Symbol Rates:	1-60 MSps
DVB-S Modulation Modes:	QPSK (All FEC Rates)
DVB-S2 Modulation Modes:	QPSK/8PSK (All FEC Rates)
	16/32APSK with License
Supported Roll-off Factors:	0.35, 0.25, 0.20, 0.15, 0.10, 0.05

DVB-S2 Advanced Feature License   AG 26916

Additional Modulation Modes:	16ASPK/32APSK (All FEC Rates)
	VCM, Multistream (Single ISI)

DVB-S/S2 INPUT MODULE WITH DVB-CI   AG 26137

Physical Interface:	Adds two DVB-CI CAM Slots
Without Multi-Service License:	Descrambles Decoded Service Only
With Multi-Service License:	Number of Services limited by CAM

DVB-CI Multi-Service Descrambling License   AG 26991

With DVB-CI Capable Input:	Enables Multi-service Descrambling

8VSB/QAM-B INPUT MODULE   AG 26101

Physical Interface:	1x 75Ω BNC
Frequency Range:	50-1000 MHz
Sensitivity:	-34 to +40 dBmV (A74 Compliant)
8VSB Standard:	ATSC A/53E
8VSB Channel Plans:	Broadcast
QAM Standard:	ITU Annex B/SCTE DVS-031
QAM Channel Plans:	FCC, IRC, HRC
QAM Constellations:	QAM64, QAM256

DVB-T/T2/C/C2/ISDB-T INPUT MODULE   AG 26115

Physical Interface:	1x 75Ω F-Type
Frequency Range:	42-1002 MHz
Bandwidth:	1.7MHz, 5 MHz, 6MHz, 7MHz, 8MHz
Constellations:	
DVB-T:	QPSK, QAM16, QAM64 (All FEC Rates)
DVB-T2:	QPSK, QAM16, QAM64, QAM256 (All FEC Rates)
DVB-C:	QAM16, QAM32, QAM64, QAM128, QAM256 (All FEC Rates)
DVB-C2:	QAM16, QAM64, QAM256, QAM1024, QAM4096 (All FEC Rates)
ISDB-T:	QPSK, QAM16, QAM64 (All FEC Rates)

MANAGEMENT

User Interfaces:	Full control via web GUI
Automation Interfaces:	SNMP status, control, traps
	Syslog alarm output
	HTTP Web services API

ENVIRONMENTAL CONDITIONS

Power:	100-240 VAC 50/60 Hz
	Dual, Redundant Supply Available
Operating Temp:	0° to 50°C

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