

SR1 - Advanced DVB-S2 Receiver with a GigE Interface

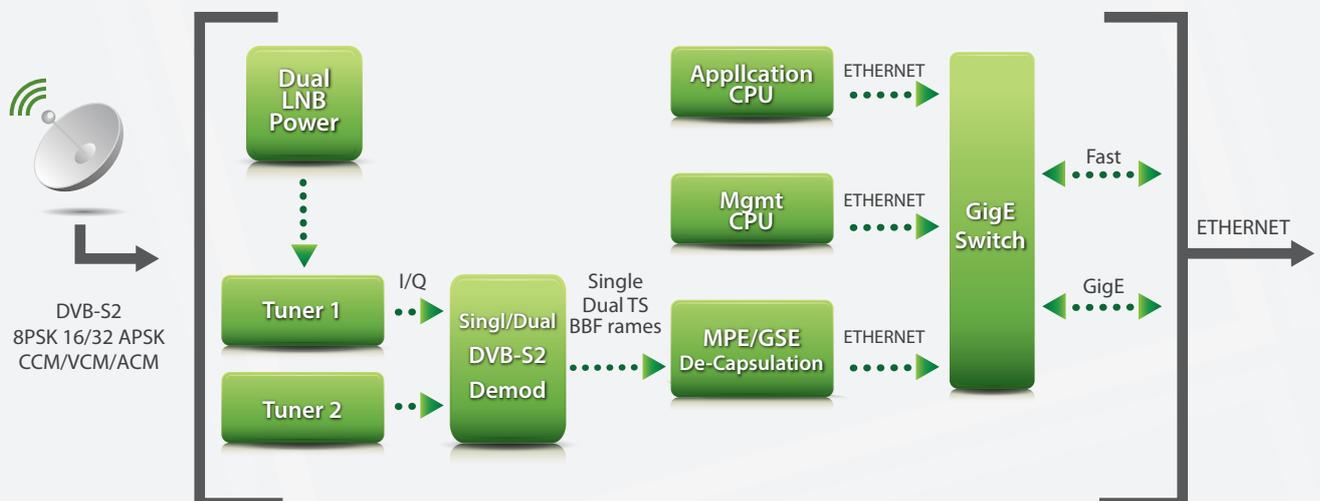
The SR1 Advanced DVB-S2 Receiver with a GigE interface, an IP-over-satellite receiver, gives service providers a strong competitive edge. SR1's best cost-performance parameters lead the market. With its support of advanced modulation modes at 16 and 32 APSK SR1 delivers more performance at lower cost and significantly reduces long-term operating costs.

SR1 Product Highlights

- Professional DVB-S2 receiver supporting ACM, VCM, 16/32 APSK
- Dual carrier receiver for 8PSK CCM, single for 16/32 APSK ACM
- GigE interface to support full DVB-S2 transponder
- Supports MPE and Generic Stream*
- Wire speed processing of traffic – full hardware implementation.
- Support for Application CPU daughter board
- Independent local IP interface for management
- Very competitive pricing
- Supports **NOAAPORT** and **EUMETCAST**



SR1 Block Diagram



Enhanced Features

Focus on Reception – SR1's unique architecture focuses on satellite reception and DVB-S2 to IP conversion, leaving data routing to external routers. SR1 provides complete implementation of the DVB-S2 receiver (including ACM, VCM, multistream* and more)

Adaptive/Variable Code Modulation – IP satellite providers can provide real-time and flexible power and modulation schemes and packet density to pre-defined customer groups at various locations instead of addressing the lowest common denominator

Support for ACM – Implementation of ACM is based on the availability of return channel (terrestrial or other) and is compliant with ETSI TS102 441

Dual-carrier Receive Feature – If customer bandwidth requires the receipt of two carriers from two satellites, SR1 aggregates the bandwidth into a single delivery

Wire-speed – SR1 handles traffic from the satellite to the network via dedicated hardware, supporting payload rates of up to 160 Mbps and eliminating the bottleneck caused by CPU processing

GigE – Provides gigabit Ethernet as a standard interface

Highly Efficient Hardware – SR1 is a highly specialized hardware platform supporting different modes of operation and completely customizable to unique customer needs, reducing initial capital expenses and long-term operating costs while eliminating vendor lock in off-the-shelf with a fixed spec

Generic Stream – SR1 supports the new generic stream IP over DVB-S2 encapsulation, offering superior performance for IP over satellite delivery as compared to the multiprotocol encapsulation (MPE) *

Easy Integration – Provides IP or MPEG-TS over DVB-S2 reception across most network architectures

Channel Encryption – To ensure the highest levels of service security, SR1 supports BISS encryption using local or Internet-based key management. Channel encryption is available as an option *

Flexible Management Interface – Provides an independent 100baseT management interface supporting CLI, Telnet, and SNMP

Highly Competitive Pricing – Ayecka's SR1 offers advanced technology at more than 50% less than other similar devices on the market

Applications

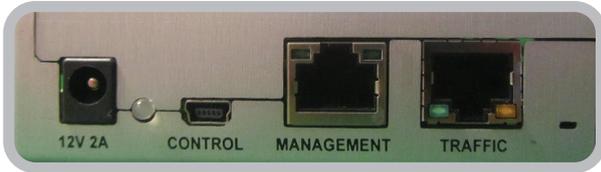
SCPC – The superior RF front end and support for high bit rates makes the SR1 an optimal solution for reception of SCPC signals.

Terrestrial return channels – combined with terrestrial microwave links like MDS, MMDS and MVDDS, the SR1 allows service providers to offer broad band connectivity to residential customers

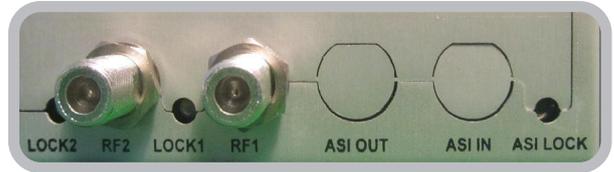
Data casting – For one way distribution networks, the SR1 offers high throughputs in small form factor and competitive price.

VSAT Throughput boosting – The simple integration with VSAT allows service providers to overcome the throughput limitation of most VSATS, allowing the customer to enjoy the advantages of VSAT service and the throughputs of SCPC.

SR1



Front View



Back View

Receiver DVB-S2 Mode

Modulation	QPSK, 8PSK, 16APSK, 32APSK
Channel Rate	up to 120 Mbps
Roll-off Factors	0.2, 0.25, 0.35
Coding	LDPC and BCH decoder as for DVB-S2 requirements
Code rates	1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
Framing	DVB-S2 framing
Modes	CCM, VCM*, ACM*

Receiver RF

Input Freq	950-2150MHz
Signal Level	-35 to -75 dBm
Symbol Rates	100Ksps to 45 Msps (Low SR require PLL LNB)
Input Connector	Type F, 75 Ohms.

LNB Power 14/18V, 22Khz, DiSEqC 2.0

TS Processing

MPE Implementation of EN 301192
 • MAC address filtering
 • Multicast support

GSE DVB-S2 standard

Environmental Conditions

Operating Temp.	0° to 50° C
Storage Temp.	-25° to +85° C
Humidity	5% to 95% non-condensing

Physical Characteristics

Dimensions	3 cm x 10 cm x 15 cm (HxWxD)
Power	12VDC, 6W
Weight	0.5 Kg

IP Interface

Interface	10/100/1000 BaseT
Packet handling	Forwarding.

Control & Monitor

Serial Port	Serial over USB CLI
IP	10/100 BaseT interface CLI and SNMP

Maintenance

Software and Firmware are field-upgradeable

Standard Compliance

Safety	TUV/cTUVus; CE, UL/NRTL
EMI/EMC	FCC part 15, Class B, EN 55022, EN 55024, EN61000, AS/NZS CISPR 22