

AZ119

ABS-S Satellite Modulator

Azimuth Product Family

AZIMUTH

SERIES

Description

The AZ119 is a state of the art broadcast satellite modulator designed for the distribution of television signals to homes in full compliance with the Direct-To-Home ABS-S standard. The AZ119 can be used in conjunction with set-top boxes and professional IRDs.

The AZ119 allows automatic or manual selection between two ASI inputs and has dual ASI monitoring outputs. Optionally, the standard ASI interfaces can be replaced by optical ASI interface.

At the output of the modulator, the signal is available on a L-band interface. An IF interface is available as an optional alternative.

Key features

- ABS-S compliant
- QPSK, 8PSK
- Data rates up to 120 Mbit/s
- ASI or optical ASI transport stream interfaces
- L-band monitoring output
- Programmable amplitude slope equalizer
- Featured-based pricing and software upgradability

Main advantages

- Low operational costs thanks to high bandwidth efficiency
- Guaranteed interoperability with ABS-S receivers
- High compactness

Applications

The AZ119 broadcast satellite modulators are designed for broadcast applications conform to the ABS-S standard such as:

- Direct-To-Home
- Primary distribution

Related products

AZ7x0 Frequency converters
AZ210 1+1 Modulator Redundancy Switches
AZ200 Universal Switching System



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Specifications



Input interface

ASI/SPI interface:

- 2x ASI input on BNC (F) - 75 ohms (coax)
- 2x ASI output (loop through) on BNC (F) - 75 ohms (coax)
- SPI on 25 pin sub-D connector
- Optical ASI on ST (optional)
- 188 or 204 byte mode
- Rate adaptation

Modulation

Supported modulation standards

- ABS-S
 - FEC : LDPC
 - MODCODS :
 - QPSK: 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 13/15, 9/10;
 - 8PSK: 3/5, 2/3, 3/4, 5/6, 13/15, 9/10

Max baud rate range

- 1 – 45 Mbaud

Frame length

- Fixed physical layer frame-sizes of 30848 symbols without pilots, 31676 symbols with pilots

Roll-off factor

- 20 % - 25% -35%

Output interfaces

L-band output (default):

- Level -50/-7 dBm (+/- 2dB)
- Frequency 950 - 1750 MHz (50 Hz steps)
- Connector SMA (F), 50 ohms
- Return loss > 10 dB

IF-band (optional):

- Level -30/+5 dBm (± 3 dB)
- Frequency 50 - 180 MHz (resolution: 47,5 Hz)
- Connector BNC (F) - 75 ohms
(intermateable with 50 ohms or 75 ohms BNC)
- Return loss 50 ohms : > 14 dB
75 ohms : > 20 dB

L-band monitoring output (with all configurations):

- Level -45 dBm
- Frequency default: identical to L-band output
with option AA-02: 1080 MHz
- Connector SMA (F), 50 ohms
- Return loss > 7 dB

Spurious performance

- better than - 65 dBc @ -10 dBm output level

Generic

Monitor and control interfaces

- Web server GUI (HTTP) via web browser
- Diagnostics report, alarm log (HTTP)
- RMCP over TCP-IP/UDP and RS232/RS485
- SNMP v.2c/MIB

Alarm interface

- Electrical dual contact closure alarm contacts
- Connector 9-pin sub-D (F)
- Logical interface and general device alarm

Physical

- 1RU, width: 19", depth 51 cm, 6 kg
- Power supply: 90-130 & 180-260 Vac, 105 VA, 47-63 Hz
- Temperature
 - Operational: 0°C to 40°C
 - Storage: -40 to +70°C
- Humidity: 5% to 85% non-condensing
- CE label

Ordering information

AZ119 ABS-S SATELLITE MODULATOR		Order n°
Input interface: ASI interface + Rate adaptor Output interface: L-band (950 - 1750 MHz) Modulation: QPSK 5Mbaud, SNMP		AZ119
Configuration options ¹		
Category		Max. 1 option per category
Input Interface	ASI	Default
	ASI + Optical ASI	AG-02
Output Interface	L-band (970-1750 MHz)	Default
	IF (50-180 MHz)	AA-02
Modulation & Baud rate	QPSK - 5Mbaud	Default
	QPSK - 15Mbaud*	AB-18
	QPSK - 30Mbaud*	AB-19
	QPSK - 45Mbaud*	AB-20
	8PSK - 5Mbaud*	AB-21
	8PSK - 15Mbaud*	AB-22
	8PSK - 30Mbaud*	AB-23
	8PSK - 45Mbaud*	AB-24

(*) upgradeable via license key