Headend Systems

Indus MKII™ – Transport Stream Descrambler

Description

Today, most programming is encrypted using a DVB-compliant Conditional Access System. In many cases, these programs need to be descrambled for further processing, and preferably without going back to baseband video/audio. For these applications Scientific-Atlanta® has developed the Indus MKII™ Transport Stream Descrambler, a descrambler capable of simultaneously descrambling selected programs in a transport stream to provide a 'clear' digital signal.

Indus MKII Transport Stream Descrambler is fully based on DVB standards such as the Common Interface for CA applications and ASI for interoperability with other equipment. This member of Scientific-Atlanta's Digital Headend platform is the successor of the largely deployed Indus™ Transport Stream Descrambler. It is denser, more flexible and easier-to-use with its embedded HTML user interface.

The removable Common Interface Module allows the operator to easily select the required CA System for Indus MKII Transport Stream Descrambler. Without the need for different product versions only changing the CI Module and Smart Card will do. Via the HTML user interface, the operator has an overview of the available services and can select the ones to be descrambled. After processing, the Indus MKII Transport Stream Descrambler outputs an MPEG-2 Transport Stream compliant with the DVB Asynchronous Serial Interface (ASI) specification containing the descrambled services.

The Indus MKII Transport Stream Descrambler is fully compatible with the Galaxy™ Modular Rack System and is an extension to the other products for the Digital Headend, like the DVB-S (Titan MKII™), DVB-C (Spectra™) DVB-T (Atlas MKII™) receivers.

Features

- Simultaneous descrambling of the selected services in a transport stream
- Bays for two DVB Common Interface Conditional Access Modules (CAMs)
- Descrambling capacity of services depends on the used CAMs
- Supports all Common Interface compliant CA systems
- ASI input & dual ASI output
- Selection of Programs or individual PIDs
- Support for HDTV program descrambling
- Embedded, browser independent HTML Graphical User Interface
- Full SNMP support and ROSA™ Network Management System integration
- Software upgradeable over Ethernet interface
- Maximum density, up to 10 TS descramblers in 3 RU
- Monitoring of main and backup power supply
- Hot-swappable
- Software programmable relay contact

Indus MKII – Transport Stream Descrambler

Specifications

Electrical Specifications	
Input	
Number of inputs	1 main
Connector (on paddle board)	BNC
Impedance	75 Ω
Interface type	Asynchronous Serial Interface (according to EN 50083-9)
Packet format	188 or 204 byte packets (auto detection) without RS
Bit rate	Max. 56 Mbps
Syntax	Single or multi-program transport (according to ISO/IEC 13818)
Output	
Number of outputs	2
Connector (on paddle board)	BNC
Impedance	75 Ω
Interface type	Asynchronous Serial Interface (according to EN 50083-9)
Packet format	188 / 204 byte packets (equal to input format)
Bit rate	Max. 56 Mbps
Syntax	Single or multi-program transport (according to ISO/IEC 13818)
Processing	
Number of CI slots	2
Connector	PCMCIA type I and II
Interface type / syntax	DVB-CI (according to EN 50221)

Other Interfaces	
Ethernet	
No. of ports	1
Connector (on paddle board)	RJ-45
Interface Type	10 Base-T
Standard	IEEE 802.3
Protocols	TCP/IP, SNMP, HTTP, FTP
Relay Contact	
Connector (on Galaxy Chassis)	2 x 25-pins female Sub D
Contacts	1 contact (3-pins) per card (COM, NO & NC)
Contact type	Relay
Alarms	Software configurable
Special Service connector	
Connector (on paddle board)	9-pins male Sub D
Interface type	RS-232

Supported CA Systems
AlphaCrypt
BetaCrypt
Conax
CryptoWorks
Irdeto
MediaGuard
Nagra
NDS VideoGuard
Viaccess

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Specifications - continued

Environmental Specifications	
Temperature within specs	+50°F to +104°F (10°C to 40°C)
Operating temperature	+32°F to +113°F (0°C to 45°C)
Storage temperature	-4°F to +158°F (-20°C to 70°C)
Power supply (nominal)	-48 V DC
Power consumption (nominal)	10 W

Mechanical Specifications	
Height	3.94 in. / 100 mm
Width	1.18 in. / 30 mm
Depth	7.87 in. / 200 mm
Weight	Approx. 0.57 lbs / 0.26 kg
Module width	6 HP (1 slot in Galaxy rack)

Ordering Information

Indus MKII	Part Number
Indus MKII Transport Stream Descrambler	4002702
Paddles for Indus MKII	
Connector Card for Indus MKII	4002701
Common Interface Modules *	
CAM for Descrambling Conax	V9523365
CAM for Descrambling CryptoWorks	V9523361
CAM for Descrambling Irdeto	V9523362
Aston Professional CAM for Descrambling MediaGuard (Maximum 12 Services)	V9528197
Aston Consumer CAM for Descrambling MediaGuard (Maximum 2 services)	V9528198
Aston Professional CAM for Descrambling Viaccess (Maximum 12 Services)	V9528199
Aston Consumer CAM for Descrambling Viaccess (Maximum 2 services)	V9528240
(*) CAM's for BetaCrypt, Nagra and NDS VideoGuard have to be purchased from the Conditional Access System vendors or from the Program provider.	

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