

FASAS44/44R family could be configured with one up to four ASI Switching Blocks per 1RU chassis. FASAS44 could be used to drive up to four transmitters in single transmitter configuration or 1+1 configuration; In N+1 configuration, FASAS44R could be configured to drive two 2+1 systems, one 3+1 system or one 4+1 system with built-in reserved transmitter ASI switching block. FASAS44/44R family has been realized with an agile Control Unit. Well done user friendly menus and GUIs make its control or monitoring very easy and powerful. ASI Control Unit prepares full task control and monitoring with detailed parameters, via a LCD display and associated keypad combined with LED status panel and user friendly menus and GUIs for local operation. In the remote mode, prepared system Ethernet port is playing the role to establish a bridge connection to the ASI Smart Switch via a computer from anywhere in the world.



Brief Specifications

Signal Type	DVB- ASI TS Stream fully compatible with DVB-ASI(50083) Standard			
Environmental Operation Conditions	0°C to 45°C, Up to 95% Non-Condensing, Up to 2000m A.M.S.L.(Storage: -20°C to 55°C)			
Electrical AC Supply	Single phase 220Vac±15% , 50Hz ±2% with redundant built-in power supply			
Power Consumption	40 W Max.			
Dimensions	19" Rack, 1RU, 37 cm depth			
Maximum ASI TS input bitrate	120Mbs			
TS measurements for ASI TS inputs	TS Sync loss, Total bitrate, Null packet bitrate and Effective bitrate			
Packet format	188 or 204 Byte Packets			
ASI TS input switching time	Less than 150 ms in the case of input TS failure in the automatic TS switching mode			
ASI Input-Output connectors	Female BNC, 75 Ω			
Local Control and Operation Interface	Status LEDs, Buttons and LCD Display Unit			
Remote Control and Operation Interface	Web GUI over RJ-45 Ethernet Port, Dry Contact programming port for reserved transmitter			
Available Customized Models	FASAS44x01	FASAS44x02	FASAS44x03	FASAS44x04
Number of ASI Switching Blocks	1	2	3	4
Supported 1+1 Configuration	One 1+1 System	Two 1+1 System	Three 1+1 System	Four 1+1 System
Number of ASI Inputs per each ASI Switching Block	4 (HPI, LPI and HP2,LP2)			
Number of ASI Main outputs per each ASI Switching Block	2x2 (Out1-1, Out1-2 and Out2-1,Out2-2)			
Number of ASI Monitoring outputs per each ASI Switching Block	1 TS Monitor			
Available Customized Models	FASAS44Rx02	FASAS44Rx03	FASAS44Rx04	FASAS44Rx02x2
Number of ASI Switching Block	2	3	4	4
Supported N+1 Configuration	2+1	3+1	4+1	Two independent 2+1
Number of ASI Inputs per each ASI Switching Block	4 (HPI, LPI and HP2,LP2)			
Number of ASI Main outputs per each ASI Switching Block	2 (Out1,Out2)			
Number of ASI Monitoring outputs per each ASI Switching Block	2 TS Monitor1, TS Monitor2			
Number of ASI Main outputs for the reserved transmitter(s)	4 TSR Out1-1,Out1-2 TSR Out2-1, Out2-2		8 TSRA Out1-1,Out1-2 TSRA Out2-1, Out2-2 TSRB Out1-1,Out1-2 TSRB Out2-1, Out2-2	

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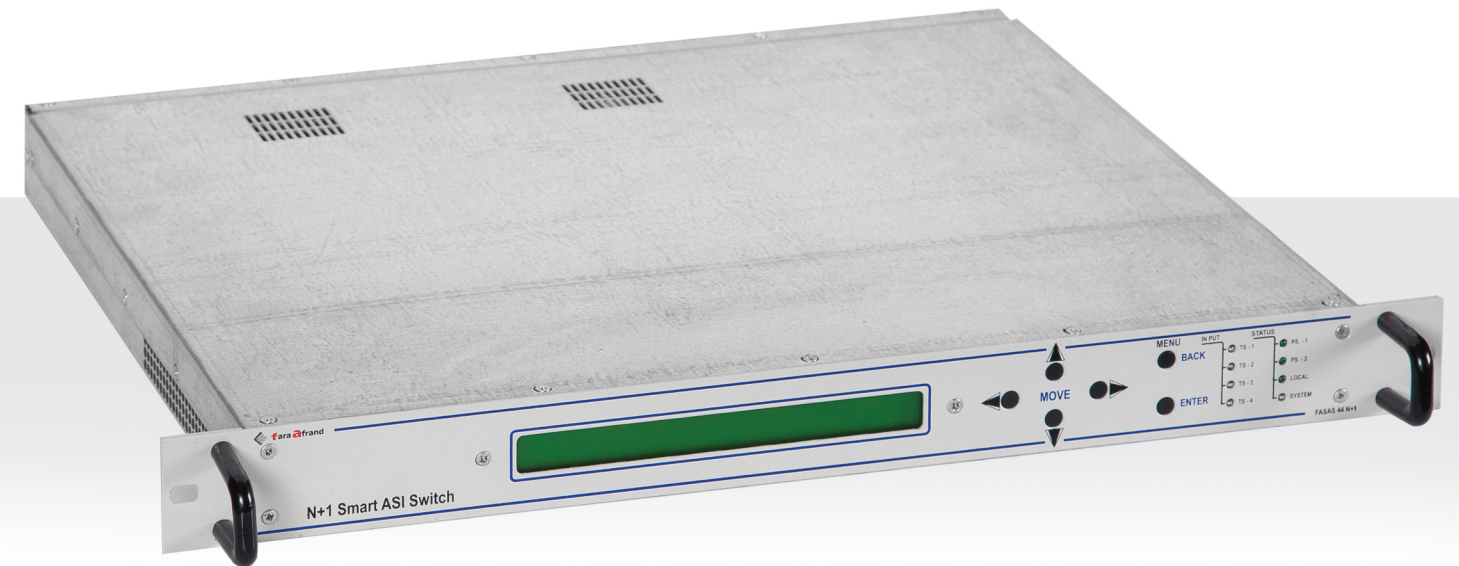
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ASI Smart Switch

FASAS44/44R Family

High Redundancy, Compact Footprint

Key facts:

- Features extra high redundancy with Automatic or Manual TS switching
- N+1 redundant system configuration is available
- Equipped with up to four independent ASI switching blocks in 1RU chassis
- Each ASI switching block accepts four independent ASI inputs and prepares four ASI outputs plus independent ASI monitoring ports
- Could be configured as four independent 1+1, two 2+1, one 3+1 or one 4+1 ASI smart switcher for TS feed interface of DVB-T/T2 transmitters in 1RU chassis
- Fully compatible with DVB-ASI Standards
- High performance with output bitrates up to 120Mb/s ASI TS bitrate for each ASI input
- Provides redundant power supply
- TS Sync loss detection for each ASI input
- Complete TS data rate measurement for each ASI input
- Effective data rate measurement for each ASI input
 - Provides full task system control and monitoring with user friendly GUIs (locally or remotely via a computer from anywhere in the world)
- Reduces installation costs thanks to compact footprint
- Provides low maintenance costs, easy installation and service due to modular system design
- Proudly offers extreme robustness, performance and low service costs due to innovate design

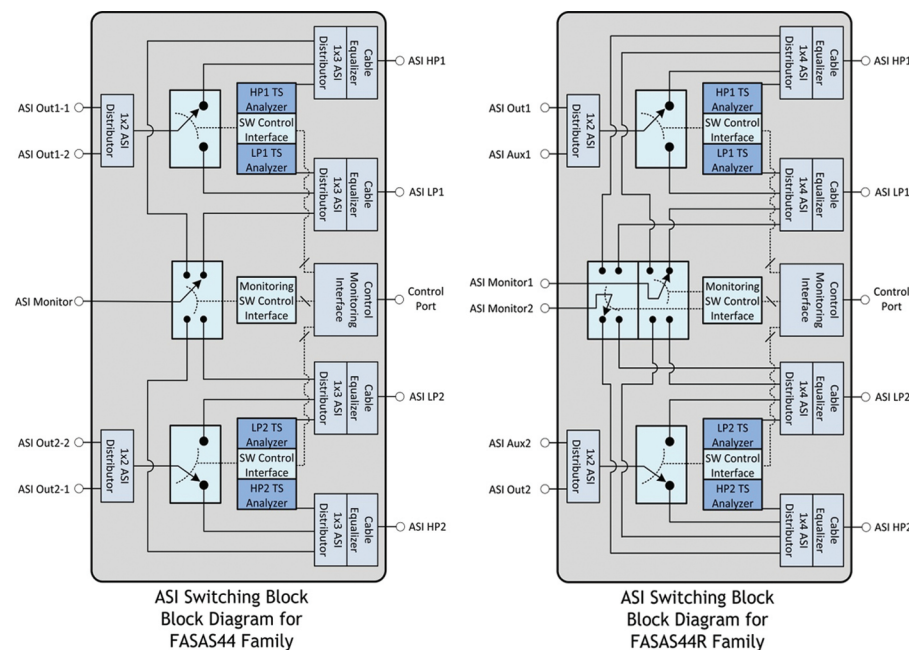
Company at a glance

Fara-Afrand was founded in 1999 as an independent, privately owned company. Fara-Afrand puts science to work by manufacturing robust, reliable and innovate solutions for on-air broadcasting systems. Concentrating more than 18 years on broadcasting transmitters, makes Fara-Afrand to a reliable supplier, offers a wide variety range of innovative products and services for markets including broadcasting systems, communication systems, telecom, ISM and electronic solutions. Up to day more than 2K transmitter blocks of the company has been launched at many broadcasting stations, playing Digital and Analog Radios and Televisions in whole broadcasting frequencies from few MHz up to 1GHz with a few watts of power up to ten kilowatts.

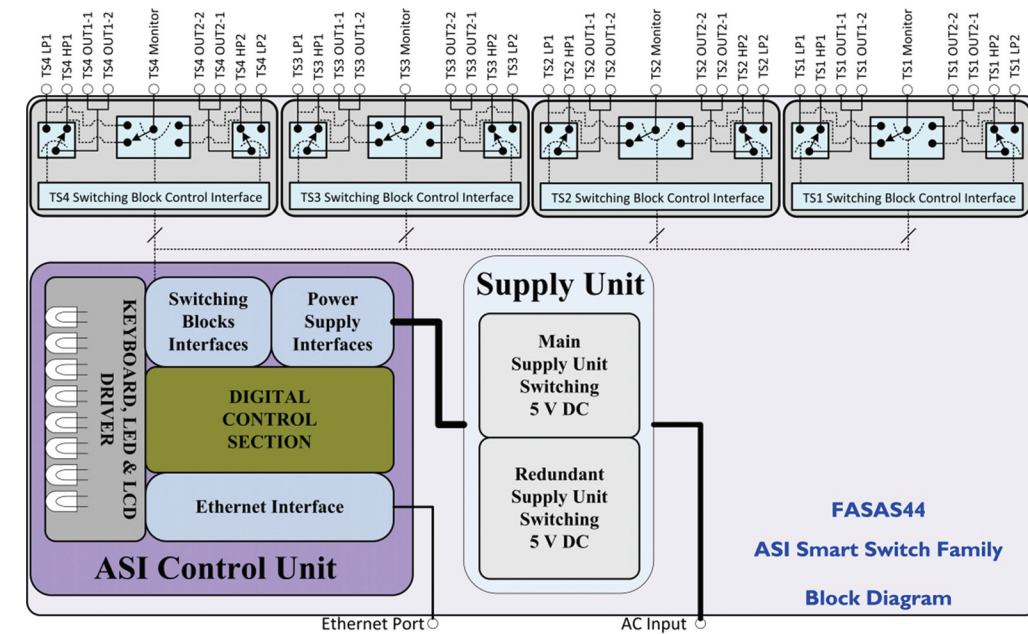
FASAS44/44R ASI Smart Switch Family

FASAS44/44R family is an innovate solution for redundant ASI feed switching of Digital Terrestrial TV transmitters. It has been sourced from its clever ASI switching block. Each ASI switching block accepts and continuously analyses its four ASI inputs. ASI switching block inputs labeled as HP1, LP1, HP2 and LP2. According to the following block diagrams, ASI inputs individually have been applied to appropriate cable equalizers and 1x3 or 1x4 ASI distributors. Each ASI signal has got its own TS analyzer, continuously extracts TS information of corresponding ASI input, results in TS sync detection, total bit rate, effective bit rate and null packet bitrate. According to these results and user preferred settings, SW control interface, forces the ASI switches in the following diagrams to transfer expected TS inputs to the associated TS outputs. ASI Monitor ports could be manually connected to each preferred ASI input. Main and Auxiliary ASI outputs have been divided to two groups. In the first group, ASI Out1-x and Aux1 are the same copies of each other. Also in the second group, ASI Out2-x and Aux2 are the same. The first group of the Main ASI outputs (Out1-x and Aux1) could be only switched to ASI HP1 or LP1 inputs in the control of SW Control Interface and in the same manner the second group (Out2-x and Aux2) could be only switched to ASI HP2 or LP2. ASI Switching Block connects to ASI Smart Switch Control Unit to transfer TS information to it and receive switching settings from it via its control port. By establishing this connection, user can easily monitors complete TS information of all ASI inputs and applies preferred switching settings to monitoring ports through the control unit menus and GUIs

to transfer each ASI input to the ASI Monitor ports. For the Main outputs (Out1-x, Aux1 or Out2-x, Aux2), user can force the ASI Switching Block to work in manual or automatic mode through the ASI Switch Control Unit Menus and GUIs. In the manual mode Out1-x and Aux1 could be manually switched to HP1 or LP1 and Out2-x and Aux2 independently could be switched to HP2 or LP2. Each Main output (Out1-x, Aux1 or Out2-x, Aux2) could be independently set in Automatic or Manual mode. In the automatic mode, according to TS information, SW Control Interface switches one of the inputs to the Main outputs.



In the automatic mode, for each group, for example for the first group (Out1-x, Aux1), if HP1 sync has been detected and its effective TS bit rate is greater than 1Mb/s, SW Control Interface forces the switch to transfer HP1(High Priority ASI Input1) to Out1-x, Aux1 and stays in this state until HP1 meets these criteria. In the case of HP1 sync or effective bitrate failure, if LP1(Low Priority ASI Input1) meets the sync and effective bitrate conditions, SW Control Interface forces the switch to transfer LP1 to Out1-x, Aux1 and stays in this state while HP1 meets the conditions again and SW Control Interface simultaneously transfers HP1 to Out1-x, Aux1.



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