

# FSK TO E1 MEDIA CONVERTER

- ▶ Extends the transmission over SDH/PDH Network.
- ▶ Complies to ITU-T V.21/ ITU-T V.23 Standards.
- ▶ Baud rate 300/600/1200 bits/second.
- ▶ 2-wire Voice-band Analog Interface.
- ▶ Software upgrade support.
- ▶ Framed and Unframed E1 support.
- ▶ Supports 1+1 protected E1s.



## HIGHLIGHTS

- ⊗ E1 complies with ITU-T G.703, G.704 Standards.
- ⊗ Supports Framed (PCM31/PCM30) and Unframed E1.
- ⊗ Supports internal, recovered (loop-timed) clock and external 2MHz clock support.
- ⊗ Supports enable/disable CRC option.
- ⊗ Supports 120Ω RJ45 balanced E1. Also supports 75Ω BNC E1 with external adapter.
- ⊗ Jitter and Wander complies to ITU-T G.823 standards.
- ⊗ Supports up to 8 FSK Ports.
- ⊗ ESD and EFT protection on FSK interface.
- ⊗ In-built wide range resilient 12-48V DC or 110-265V/50-60Hz AC power supply.
- ⊗ In-built protection on power input.
- ⊗ Dry Contact alarm relay output.
- ⊗ Wide operating temperature range from -40 to 85°C.
- ⊗ Hardened metallic chassis.
- ⊗ A make in India product. Designed and developed indigenously.
- ⊗ Full technology control, customization support available.

## OVERVIEW

Anaya Tech FSK to E1 Converter is a specialized device designed to convert Voice-band analog FSK signals into E1 digital signal to carry it over the E1 links or the existing PDH/SDH network and re-convert it back to the FSK signal at the other end of the network.

By utilizing FSK to E1 Converters, users can seamlessly integrate their FSK-based communication systems over PDH/SDH network, enhancing data integrity, reducing signal degradation, and extending the communication range. These converters play a significant role in ensuring smooth and efficient data transmission in various industries where reliable connectivity is essential. Anaya Tech FSK to E1 converter also offers 1+1 protected E1 links to protect the transmission in case primary E1 fails.

## SPECIFICATIONS

### FSK Interface

Protocol	2-wire Voice-band Analog Interface (FSK)
Ports	1/2/4/8
Standards	ITU-T V.21 @300 bits/second ITU-T V.23 @600/1200 bits/second
Impedance	600 Ohms

### Power Supply

Option 1	12-48V DC
Option 2	110-265V, 50/60Hz AC

### E1 Interface

Interface	120 $\Omega$ Balanced (75 $\Omega$ Unbalanced with external adaptor)
Framing	Framed – PCM30 and PCM31 Unframed
CRC	Enable / Disable option
Line-code	HDB3
Connector	RJ45 (BNC with external adaptor)

## PROTECTION

### Power

Reverse Polarity	YES
Over Current / Short-circuit	YES
Under Voltage / Over Voltage	YES
Surge Protection	UL1449 compliant 4.5kA

### E1 Interface

Protection	1.5kV Galvanic Isolation with surge protection
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### FSK Interface

Surge Protection	IEC-61000-4-2 ESD - 30kV (Air), 30KV (Contact)
	IEC-61000-4-4 EFT

### Other

Weather Proofing	Conformal coated PCBs
Mechanical	Ingress Protection – IP30

### Applications

- ☑ Instrumentation
- ☑ Audio Transmission
- ☑ Remote Monitoring and Control
- ☑ Industrial Automation and Control
- ☑ Security and Surveillance

### Industries

- ☑ Railways
- ☑ Power
- ☑ Telecommunications
- ☑ Oil and Gas
- ☑ Heavy Industries

# APPLICATION DIAGRAM

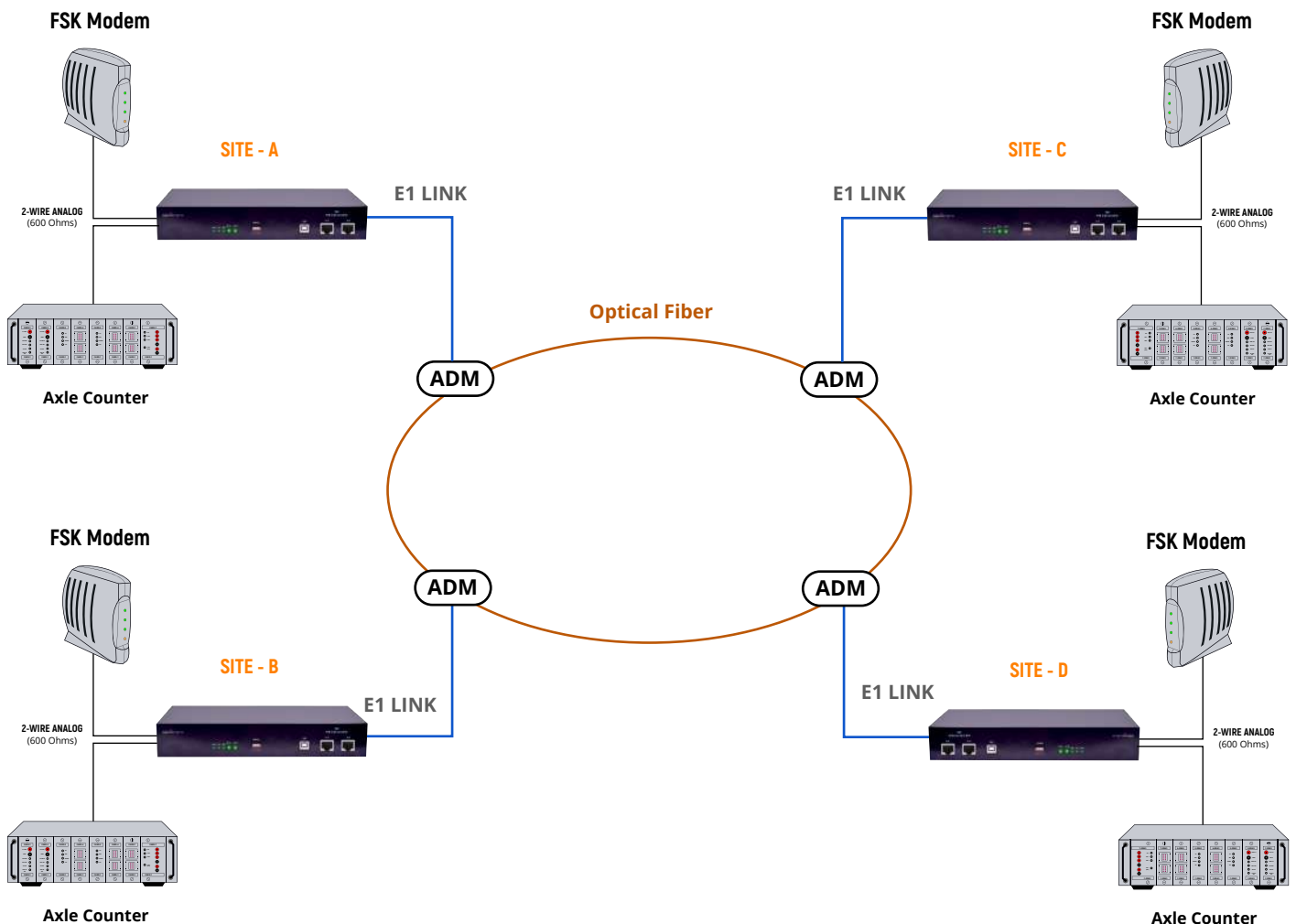
## Point-to-point Application

In point-to-point mode, the converters establish a direct, one-to-one connection between two locations. This mode is commonly used to bridge two Analog FSK interfaces over an E1 link.



## Network Application

The FSK to E1 converter may also be connected over an SDH/PDH network to establish a seamless integration of FSK devices over an existing SDH/PDH network.



- E1 Link
- SDH/PDH Ring
- ADM- Add-Drop Multiplexer

Alarm & Indicator	
PWR	System Power
SYS	System Health
ERR	Error detected
E1 A	E1 Port A Sync
E1 B	E1 Port B Sync

Mechanical	
Chassis	Heavy Duty Metal Housing
Type	Desktop
Height	1RU (44mm)
Dimensions (HxDxW)	44x160x269 (in mm)
Weight	1.35 Kg

Environmental	
Operating Temp.	-40°C to 85°C
Storage Temp.	-40°C to 85°C
Humidity	5% To 95% - No Condensation

Quality And Certifications	
Product Safety	CE, RoHS
Quality Management	Manufactured in ISO certified factory

## ORDERING INFORMATION


Model	Description		
	Topology	E1 ports	FSK Ports
FEC-01-18	P2P	1	8
FEC-01-14	P2P	1	4
FEC-01-12	P2P	1	2
FEC-01-28	P2P	1+1*	8
FEC-01-24	P2P	1+1*	4
FEC-01-22	P2P	1+1*	2


\*For redundancy


### Ordering Options

- ✔ **FSK Interface:** ITU-T V.23/CCITT V.23@600/1200 bits/second  
ITU-T V.21/CCITT V.21@300 bits/second
- ✔ **Power :** AC: 110-265 VAC, DC : 12-48 VDC

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