

FDU-160i

Advanced Frequency Distribution Amplifier

The FDU-160i is a high performance signal distribution amplifier designed for use with high precision time and frequency sources.



Features

- Network Enabled Frequency Distribution Amplifier
- Dual Frequency Inputs with Auto Failover
- Low Phase Noise Reference Frequency Outputs
- Programmable per channel amplitude
- SNMP V3 Protocols
- 1U 19" rack mount
- Redundant Hot Swap Power Supplies

Key Benefits

The FDU-160i is contained in a compact 1U rackmount chassis. The FDU accepts two sets of inputs, comprising the reference frequency (typically 10MHz) and status from the source.

The FDU provides automatic changeover should one of the on-line source inputs fail. Manual source select override is available on the front panel, or through the Ethernet interface.

A variety of status indicators are located on the front panel for instant visual feedback, together with manual controls for source selection.

A 10/100 baseT Ethernet interface provides full control over the functionality of the system, including reference selection and output amplitude (on a per channel basis).

User control of the unit is via a built-in Web Browser with user-friendly graphical interface, or via SNMP for system applications.

Applications for the FDU-160i include secure communications systems, satellite ground stations, digital television broadcasting and any system requiring highly reliable frequency outputs.

FDU-160i Specifications

Frequency Inputs

Frequency	10 MHz, +/- 5PPM
Amplitude & Impedance	0.5-1Vrms, 50 Ω
Isolation	Transformer coupled
Number of Inputs	2
Connector Type	BNC
Input	Selection Manual, Auto

Fault Inputs

Number of Inputs	2
Signal Type	TTL
Active Level	Selectable for active high or low
Action	Forces on-line changeover

Frequency Outputs

Number of Outputs	16
Frequency	Same as Input 10MHz (std),
Optional	1-20, 1, 5 MHz
Output Level	5dBm to +13dBm, shortcircuit proof
Connector Type	BNC
Harmonic Distortion	-40 dBc
Cross Talk	-80 dBc
Spurious	-80 dBc
Additive Phase Noise@10MHz**	
1Hz	-132 dBc
10 Hz	-142 dBc
100 Hz	-155 dBc
1 kHz	-163 dBc
>10 kHz	-163 dBc

Specification valid when levels are set to +13 dBm

Network Interface

Interface Type	10/100 base T
Protocols	HTTP, SNMPV3, DHCP, IPV4
Connector	RJ45

Console Port

Interface Type	RS232
Parameters	115200, N, 8, 1
Connector	DB9

Display

Display Type	16 bicolor LED
Functions	Output status, Ethernet settings

Status Output (Alarm)

Type	Dry relay form C contacts
Ethernet	SNMP trap
Alarm	Function Summary of all input/output alarms (relay)
Individual (Ethernet)	input, output, power

Power

Redundancy	Dual redundant Single supply maintains complete unit
Voltage	90-240 VAC 50/60Hz (std) 18-36V DC Optional 36-72VDC Optional
Power Consumption	<15W

Environmental and Safety

Temperature	
Operating	-10 to +55°C non condensing
Storage	-40 to +85°C
Product Safety	EN60950-1: 2006 + A11-2009 +A1:2010 A12:2011
EMC	EN55022 Class A EN50082-2 FCC Chapter 15 Class A

Ordering Information

Advanced Frequency Distribution Amplifier

Basic Unit Includes Dual AC Power Supplies

022050001	2 i/p 10MHz, 16 output 10MHz
022050002	2 i/p 5MHz, 16 output 5MHz
022050003	2 i/p 1MHz, 16 output 1MHz
022050004	1ea i/p 5MHz,10MHz, 8 ea. o/p 5,10 MHz*
022050005	2 input, 16 output 1-20 MHz**

Power Options (order separately)

022060001	Substitute 18-36 DC power for AC
022060002	Substitute 36-72 DC power for AC

The FDU-160i may be used with many of our precision frequency sources for distribution of precision frequency outputs.

* No Auto-switch applicable to 022050004

** Not applicable to 022050005