

FDC3302 Frequency Distribution Chassis

High-Performance, 2x10 Autoswitch Distribution Amplifier

The FDC3302 is a high-performance, dual-input, ten-output, frequency distribution amplifier in a 1U rackmount chassis. The FDC3302 provides ten isolated copies of an input signal. Fault sensing of signal levels is provided on all inputs and outputs, status is easily visible via front-panel LED indicators, and monitoring via an RS-232 port is a standard feature. In addition, remote control and status monitoring via a network port is available as an option. The FDC3302 is unique in the industry - no other low-cost system offers this combination of capabilities and performance in a single product.



Output Signal Quality

The FDC3302 features low-signal distortion and added phase noise along with high isolation between output channels. Power supply voltages are post-regulated and all output buffers are individually regulated, ensuring very low output spurious noise levels.

Autoswitching

The FDC3302 can be configured for single or dual input operation. If two inputs are available then the FDC3302 will monitor the input signals. If an input is removed or the amplitude is greatly reduced it will automatically switch to the other input. This feature ensures that your critical signals are always present.

Alarm Input

The FDC3302 is compatible with the alarm output signal from the Meridian Precision GPS TimeBase and the Tycho Frequency Reference. If one of these units is sourcing the FDC3302 and its alarm output goes active, then the FDC3302 will automatically switch to the backup source. Since this alarm input may be cascaded to multiple FDC3302 units simply, using BNC T-adapters and coaxial cable, multiple FDC3302 units can be bank switched.

Status Indicators

Front panel LEDs provide you at-a-glance status of the distribution chassis. The FDC3302 provides LED indicators for the power supply(ies), the two inputs, all output signals and a summary alarm indicator. The summary alarm is also available as an open-collector output on a rear-panel BNC.

Control and Status Monitoring

The FDC3302 can be configured and monitored by means of an RS-232 serial port. Both switch status and output status can be monitored in this way. For remote control and monitoring, a network port is available as an optional upgrade.

Options

The FDC3302 Frequency Distribution Chassis can be configured for one input or two inputs with autoswitch. Two inputs is the factory default. An additional option is the capability of having dual redundant, AC or DC power supplies. The two power supplies can be any combination of AC/AC, AC/DC, or DC/DC. A network port that can be used for remote control and status monitoring is also available with a full suite of network protocols.

Two-Year Warranty

The FDC3302 Frequency Distribution Chassis is backed by a full two-year warranty against defects in material and workmanship.

Money-Back Guarantee

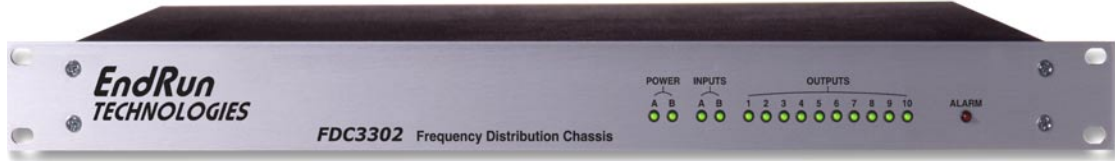
If your FDC3302 does not meet your time and frequency distribution needs for any reason, simply return it within 60 days for a full refund. Refer to www.endruntechnologies.com/guarantee.htm for more details.

FEATURES

- Single Input or Autoswitching Between Dual Inputs
- 10-Channel, Broadband (100 kHz to 30 MHz) Sine Wave Distribution
- Very Low Added Phase Noise
- Very High Port-to-Port Isolation
- Very Low Distortion
- RS-232 Port for Control and Monitoring
- Dual-Redundant AC or DC Power Supply Options
- Ethernet Port Option for Remote Control and Monitoring



FDC3302 High-Performance Frequency Distribution Chassis Specifications



INPUTS (A and B):

- Frequency Range: 100 kHz to 30 MHz.
- Impedance: 50Ω , SWR <1.1.
- Amplitude: +13 dBm Full Performance, 0 dBm \pm 2 dBm minimum, +15 dBm maximum.
- A Input to B Input Isolation: <-105 dB, full frequency range.
- Protection: Protected to 24V peak-to-peak.
- Connectors: Rear-panel female BNCs.

OUTPUTS (1 through 10):

- Impedance: 50Ω , SWR <1.8 @ 100 kHz.
SWR <1.2 @ 1 MHz.
SWR <1.3 @ 10 MHz
SWR <1.8 @ 30 MHz.
- Unity Gain: 0 dB, +/- 1dB.
- Harmonics: <-40 dBc @ 13 dBm and 100 kHz \leq F \leq 20 MHz,
<-35 dBc @ 13 dBm and F > 20 MHz,
<-30 dBc @ 15 dBm.
- Spurious: <-110 dBc.
- Port-to-Port Isolation: <-100 dB @ 100 kHz to 10 MHz
<-90 dB @ > 15 MHz.
- SSB Phase Noise @ 10 MHz and +13 dBm output level:
 - At 1 Hz <-135 dBc/Hz.
 - At 10 Hz <-145 dBc/Hz.
 - At 100 Hz <-155 dBc/Hz.
 - At 1 kHz <-163 dBc/Hz.
 - At 10 kHz <-163 dBc/Hz.
- Protection: Outputs may be shorted to ground with no damage.
- Connectors: Rear-panel female BNCs.

EXTERNAL ALARM INPUTS (A and B):

- Normal State: TTL low.
- Alarm State: TTL high or high Z (internal 10K pull-up).
- Connectors: Rear-panel female BNCs.

ALARM OUTPUT:

- All fault indicators are summed together providing this common alarm output.
- Open Collector, 40VDC Max, 100 mA Max Saturation Current.
- High impedance when fault condition exists.
- Connector: Rear-panel female BNC.

MAINTENANCE PORT:

- RS-232 serial I/O on DB9M jack for local terminal access. Used for control and status information.
- User-Selectable Port Settings: 9600 to 57600 baud; 7 or 8 data bits; odd, even or no parity; 1 or 2 stop bits.
- Factory Default Settings are: 19200,8,n,1.

SYSTEM STATUS INDICATORS:

- Input LEDs: Green when a signal is detected on the input channel and red when the signal is absent. The FDC3302 can be configured for two input signals with autoswitch or for only one input signal.
- Output LEDs: Green when the output signal is OK and red when a short is detected.
- Power LEDs: Green when the power supply is OK, and red when a fault condition exists.
- Alarm LED: Red when any fault condition exists. All fault indicators are summed together to provide this one common fault.

POWER:

- 90-264 VAC, 47-63 Hz, 0.5A Max. @ 120 VAC.
- 3-Pin IEC 320 on rear panel, 2-meter cord included.

SIZE:

- Chassis: 1.75"H x 17"W x 10.75"D.
- Weight: < 5 pounds.

ENVIRONMENTAL:

- Temperature: -0° to +50° C.
- Humidity: 0 to 95%, non-condensing.
- Storage Temperature: -40° to +85° C.

COMPLIANCE:

- CE, FCC.

OPTIONS:

- Can be configured for one or two inputs. Factory default is two inputs with autoswitch.
- -48, +12, +24/28, +125 VDC input.
- Dual-redundant AC or DC power supplies. Combinations can be AC/AC, AC/DC, or DC/DC.
- Network Port: Ethernet 10Base-T or 100Base-TX; RJ-45 connector; Protocols include: TCP/IP, SSH, DHCP, Telnet and SNMP MIB-II.

