

TDC3303e *Time Code Distribution Chassis*

2x10 Autoswitch Distribution Amplifier

TDC3303e is a dual-input, ten-output, low-frequency distribution amplifier in a 1U rackmount chassis. The TDC3303e (TDC) provides ten isolated copies of an input signal and is ideal for distributing IRIG-A, B, E, G or H time code. Fault sensing of signal levels is provided on all inputs and outputs and status is easily visible via front-panel LED indicators. Control and monitoring is supported via a network port and an RS-232 serial port. Dual power supplies are optionally available to provide the highest reliability for mission critical applications. The TDC is unique in the industry - no other low-cost system offers this combination of capabilities and performance.



Autoswitching

TDC3303e can be configured for single or dual input operation. If two inputs are available then the TDC 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 failover feature ensures that your critical signals are always present if one of the inputs become unavailable or its level is compromised.

Alarm Input

The TDC is compatible with the alarm output signal from the Meridian II and Tycho II Precision TimeBase. If one of these units is sourcing the TDC and its alarm

output goes active, then the TDC will automatically switch to the backup source. To support bank switching, this alarm input may be cascaded to multiple TDC units by simply connecting the inputs with coaxial cable and BNC T-adapters.

Status Indicators

Front panel LEDs provide you at-a-glance status of the distribution chassis. The TDC 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 on a rear panel open-collector output BNC.

Control and Status Monitoring

The PDC can be configured and monitored by means of a network port (SSH) or RS-232 serial port. SNMP monitoring is supported with an Enterprise MIB and traps to interface to a network management system. The web interface is designed with security in mind, so its use is restricted to monitoring status, alarms, and configuration settings. The web interface can be completely disabled for the highest level of security.

Dual Power Supplies

For the highest level of power source and supply fault-tolerance, the TDC supports dual-redundant, AC or DC power supplies. The two power supplies can be any combination of AC/AC, AC/DC, or DC/DC.

High Reliability

TDC3303e uses EndRun's power-efficient, fanless design and thermal packaging to achieve an estimated MTBF up to 30 years. The system is made in America, backed by a two-year warranty, a 60-day money-back guarantee, and supported by EndRun's top-notch technical support team free of charge!

FEATURES

- 10-channel, low-frequency sine wave distribution (100 Hz to 100 kHz).
- Ideal for IRIG-A, B, E, G or H time code distribution.
- Single input or autoswitching between dual inputs.
- High port-to-port isolation.
- Ethernet port for remote control, monitoring and SNMP.
- RS-232 port for local control and monitoring.
- Dual-redundant AC or DC power supply options.
- 2-Year Warranty.
- 60-Day Money-Back Guarantee.
- Free technical support for life.



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Specifications



TDC3303e front and rear panel views. Shown with optional dual power supplies.

INPUTS (A and B):

- Carrier Frequency: 100 Hz to 100 kHz.
- Modulation Ratio: Any.
- Impedance: 50Ω (or 10 kΩ option).
- Amplitude: .7V peak-to-peak to 6 V peak-to-peak.
- Protection: Protected to 24V peak-to-peak.
- Connector: Rear-panel female BNC.

OUTPUTS (1 through 10):

- Impedance: 50Ω.
- Unity Gain: 0 dB, ±1dB.
- Port-to-Port Isolation: > 70 dB.
- Distortion: Harmonics < -50 dBc @ max output level.
- Protection: Outputs may be shorted to ground with no damage.
- Connector: Rear-panel female BNC.

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 providing a common alarm output.
- Open collector, 40 VDC max, 100 mA max saturation current.
- High impedance when fault condition exists.
- Connector: Rear-panel female BNC.

SYSTEM STATUS INDICATORS:

- Input LEDs: Green when a valid signal is detected and red when the signal is absent.
 - 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 to provide one common fault.

SERIAL I/O PORT

- RS-232 serial I/O on DB9M jack for secure, local terminal access.
- Default Parameters: 19200 baud, 8 data bits, no parity, 1 stop bit.

NETWORK I/O

- Rear-panel RJ-45 jack.
- 10/100 Base-T Ethernet.

NETWORK PROTOCOLS

- IPv4/IPv6.
- SSH client/server with "secure copy" utility, SCP.
- SNMP v1, v2c, v3 with Enterprise MIB.
- HTTPS (Web Interface).
- TELNET client/server. FTP and DHCP clients.
- NTP client/server.
- SYSLOG.

POWER:

- 90-264 VAC, 47-63 Hz, 0.5A Max. @ 120 VAC, .25 A Max @ 240 VAC.
- 110-370 VDC, 0.5A Max. @ 120 VDC.
- 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:

- Operating Temperature: 0° to +50° C.
- Storage Temperature: -40° to +85° C.
- Operating Humidity: 5% to 90% RH, non-condensing.
- Storage Humidity: 5% to 95% RH, non-condensing.

COMPLIANCE:

- CE, FCC, RoHS, WEEE.

OPTIONS:

- Dual-redundant AC or DC power supplies. Combinations can be AC/AC, AC/DC, or DC/DC.
- DC power supply: -48, +12, +24/28, or +1.25 VDC.

OTHER DISTRIBUTION CHASSIS:

- FDC3302e High-Performance Frequency Distribution Chassis
- FDC3300e Frequency Distribution Chassis
- PDC3301e Pulse Distribution Chassis

RELATED TIME AND FREQUENCY STANDARDS:

- Meridian II Precision TimeBase
- Tycho II Precision TimeBase

