

TRANSCAN Digital Fault Recorder Systems (DFR / DDR / PMU)



Mehta Tech, Inc.

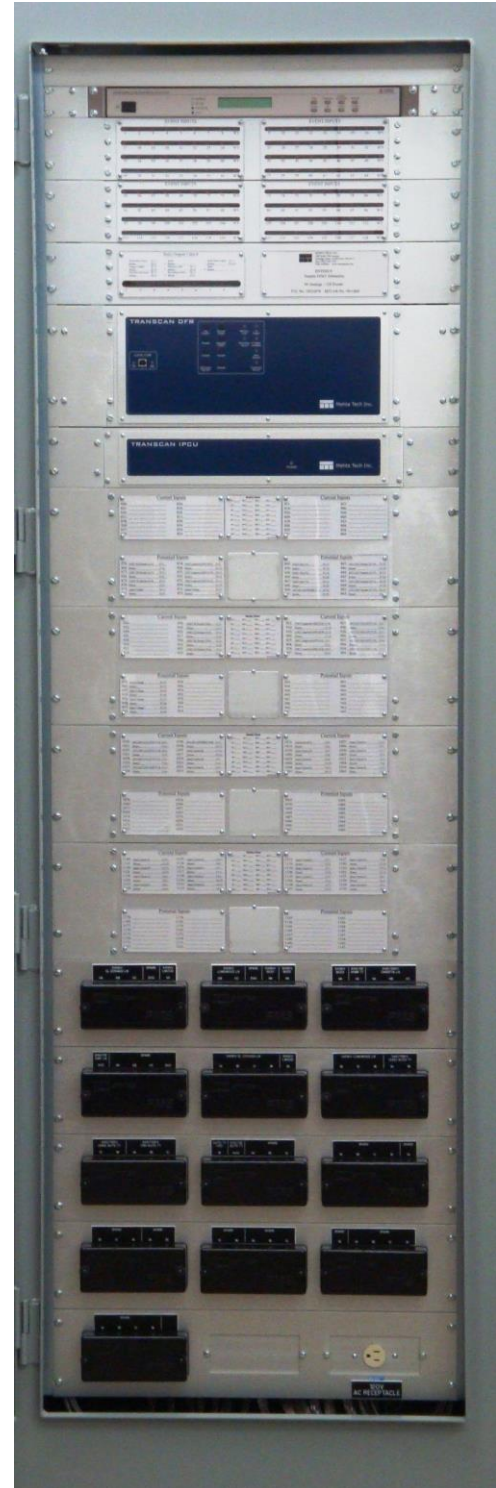
Mehta Tech is a manufacturer of high-speed automatic data collection and recording devices used to continuously monitor electric power delivery systems. Our DFR system with Continuous Recording exceeds the NERC Disturbance Monitoring (PRC-002-2) standard requirements.

Mehta Tech has supplied DFRs to over 100 customers during our 30+ years in business, giving us one of the largest installed base of DFRs in the US. We are involved in customer-specific R&D to conceive, test and prove industry innovations, and are recognized as a company that has led market development in many areas.

TRANSCAN DFRs are modular in design. This enables our customers to inexpensively upgrade or expand their installed systems to the latest level of hardware and software to satisfy ever-changing regulatory environment.

Systems can be supplied for new installations in open racks or cabinets, as retrofit units to replace existing recording equipment, or as a complete turnkey installation.

We lead the industry with our depth of site-specific project planning and service, including customized documentation. We can assist your personnel to install, commission and maintain systems. Our technical hotline offers telephone support that covers all aspects of system operation.



SPECIFICATION SUMMARY

ANALOG CHANNELS (CURRENT OR VOLTAGE)

16 to 64 per chassis. Larger systems can be built by using cross-triggering

AC CURRENT INPUT RANGE (CTs)

5 A nominal; 12 A continuous; 63 A one minute; core saturation @ 60 Hz = 140 A
1 A input optional. Options for split-core, clamp-on and Transig interfaces

AC POTENTIAL INPUT RANGE (VTs)

67 to 120 Vac nominal, 100% over-range

ISOLATION FREQUENCY RESPONSE

CT inputs: 100 A maximum, < 3 dB from 1.0 Hz to 10 kHz

VT inputs: 150 V maximum, < 3 dB from 4 Hz to 10 kHz

DC isolation: < 3 dB from DC to 2.5 kHz

AC INPUTS BURDEN

CT: Less than 1 VA at 5 A nominal

VT: Less than 0.25 VA at 67V nominal

EVENT CHANNELS

8 to 128 per system cabinet

EVENT (DIGITAL) INPUT RANGE

5 to 250 V; wet or dry inputs

ALARM OUTPUTS

Seven status and alarm outputs; 150 Vdc, 125 mA contact rating, NO or NC

ELECTRICAL TESTS

Dielectric: IEEE C37.90

SWC: IEEE C37.90.1

SCAN RATE (60Hz applications)

720 to 5,760 samples/second

A/D RESOLUTION

16-bit A/D converters

INTERNAL MEMORY

16MB standard, 32MB optional
255 record capacity, non-volatile solid-state storage.

RECORD LENGTH PARAMETERS

Pre-trigger and post-trigger periods;
minimum and maximum record lengths

SOFTWARE TRIGGERS (DSP based)

Standard digital: Change from normal to abnormal state; any change of input state

Standard analog: Over and under voltage; over current; negative, zero, and positive sequence; frequency (over and under); rate-of-change of voltage

COMMUNICATION Interfaces

Front panel USB port, rear panel RS-232 ports; up to 115.2 kbps standard. Internal modem and 100 Mbps Ethernet interface options

OPTIONAL DDR (Continuous Recording) & PMU Functionality

Information Processing & Communications Unit (IPCU) with 1 Gbps and 100 Mbps Ethernet, network support, 60+ day once-per-cycle continuous recording functionality for disturbance / long term recording applications, 32GB or 64GB non-volatile solid-state (SATA) drives for fault, dynamic disturbance recording (DDR) and /or local phasor data storage
IEEE C37.118 compliant phasor data streaming, supports streaming up to 64 phasor / values, UDP and TCP/IP communication with authentication

TIME REFERENCE

IRIG-B time stamp; internal clock; External GPS clock / receiver optional

OPERATIONAL POWER REQUIREMENTS

90 to 300 Vdc (or 120 Vac for test purposes)

PHYSICAL DIMENSIONS (inches)

Rack-mounted: 22" W x 90" H or 27" W x 90" H (typical)

Cabinet-mounted: 29" W x 29" D x 90" H or 24" W x 24" D x 90" H

WEIGHT (pounds)

Rack-mounted: 500 pounds (typical)

Cabinet-mounted: 800 pounds (typical)

AMBIENT TEMPERATURE

0 °C to +55 °C

RELATIVE HUMIDITY

5% to 90% relative humidity, non-condensing; optional cabinet heater with rear door vent for humidity control

WARRANTY

2, 5, 10 year system warranty options

*Specifications are subject to change without notice
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