

kronback tracers

NDX

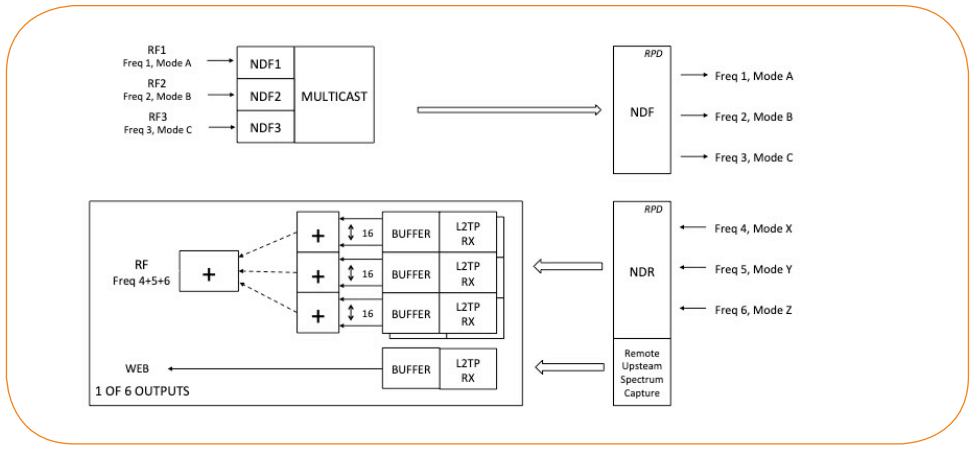
NDX
OOB GATEWAY



FEATURES

- * 3 NDF interfaces
- * 6 NDR interfaces
- * Digital combining
- * Remote Upstream Spectrum Capture
- * Dual stack IPv4 and IPv6
- * Dual hot swap PSU
- * IEEE 1588 reference
- * NDF/NDR mode 0-7
- * 4x10GbE SFP+ modules
- * High resolution LCD display

NDX CONCEPT DIAGRAM



NDX OOB GATEWAY

The Kronback Tracers NDX OOB Gateway is placed in the headend for NDF/NDR - narrowband digital forward/return interfacing. It consists of 3 NDF inputs (70 to 866 MHz) and 6 NDR outputs (5 to 65MHz). Each of the 3 NDF inputs transmits one narrowband range up to mode 7 (25.6 MS/s), including the full FM band 87.5 to 108 MHz. Each of the 6 NDR connectors outputs up to three narrowband signals from the RPD with a bandwidth up to mode 6 (5.12MS/s).

DIGITAL COMBINING

The NDR outputs are digitally combined from up to 16 simultaneous RPDs. With 6 NDR connectors a total of 6x16 (96) RPDs are interfaced with the NDX.

MONITORING NDF/NDR SIGNALS

All NDR and NDF signals can be monitored online from the WEB interface or LCD display of the NDX. This includes monitoring of Remote Upstream Spectrum Capture data as well. A separate -20dB measurement point provides RF measurements with external monitoring equipment.

REMOTE UPSTREAM SPECTRUM CAPTURE

The NDX receives Remote Upstream Spectrum Capture data from the RPD, turning the NDX into a fully featured return path monitoring system. The NDX interfaces with the Kronback Tracers X16 returnpath monitoring platform, providing a convenient single interface for mixed CMTS and CCAP environments.

HIGH SPEED DATA CONNECTION

4x SFP+ (10Gb/s) ensures high data throughput for both NDF and NDR. The NDX is fully IPv4 and IPv6 dual stacked. This covers both management and CIN interfaces.

IEEE 1588 REFERENCE

For external synchronization the NDX supports IEEE 1588 reference (G.8275-2 profile).

SPECIFICATIONS

PHYSICAL SPECIFICATIONS

- Height: 43.8 mm (1 rack unit)
- Width: 482 mm (standard 19" dimensions)
- Depth: 295 mm
- Weight: 4.4 kg

NDF INPUTS

- Connector: F-type, AC coupled, 100V DC isolation
- Frequency range: 70-866 MHz
- ADC Full-scale Dynamic range (1 CW): 80-110 dBuV
- 1 NDF channel per F-connector
- Mode 0-7
- Input power attenuation: 30 dB
- Impedance: 75 Ohm
- Return loss: >16 dB
- RF level accuracy: +/- 0.5 dB
- Isolation to all input/outputs: >60 dB

NDR OUTPUT

- Connector: F-type, AC coupled, 100V DC isolation
- Frequency range 5-65 MHz
- 1 to 3 NDR channels multiplexed per F-connector
- Mode 0-6
- Output power attenuation: 30 dB
- RF level accuracy: +/- 0.5 dB
- Isolation to all input/outputs: >60 dB

NETWORK INTERFACES

- Fully dual stack IPv4 and IPv6 on all interfaces and protocols
- Gigabit Ethernet for control and management
- 4x10G Ethernet (pluggable SFP+ modules) for NDR/NDF packets
- Fixed IP address and DHCP support
- IEEE 1588 G8275.2 profile

NDR

- 96 RPDs
- NDR mode 0-6
- 1-3 NDR channels per RPD
- Digital combining of up to 16 NDR streams (of same mode)
- IPv4 and IPv6

NDF

- 3 NDF streams
- NDF mode 0-7
- IPv4 and IPv6

LEDS

- 3 LEDs indicating NDF activity
- 6 LEDs indicating NDR activity
- 9 LEDs indicating activity on LCD screen
- 2 LEDs indicating PSU status
- 8 LEDs indicating Link and activity on SFP+ modules
- 2 LEDs indicating Link and activity on GbE management interface

ELECTRICAL

- AC power supply**
- 115/230V IEC connector
- Power consumption: <50 Watt
- Independent dual hot swap replaceable PSU plug-in units

-48V DC power supply

- DC terminal
- Reverse polarity protection
- Power consumption: <50 Watt
- Independent dual hot swap replaceable PSU plug-in units

COOLING FANS

- Dual
- Hot swap replaceable



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We encourage you to contact our sales organization to test our products on your premises.

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