SONIFEX
Audio Solutions for AV & Broadcast Media

61 Station Road, Irthlingborough, Northants, NN9 5QE, UK
t: +44 (0)1933 650 700 **e**: sales@sonifex.co.uk **w**: www.sonifex.co.uk

Network Modes and Audio and Control Separation

Applies to Sonifex RM-X-64-DNT Reference Monitor

The Dante RM-X-64-DNT Reference Monitor provides four external network connections: two RJ45 Ethernet ports and two SFP ports. These are arranged as primary and secondary interfaces.

The following network modes are available:

- **Switched mode**: a single VLAN is present on all ports, and both audio and control traffic are carried on that VLAN.
- **Redundant mode**: the primary VLAN is present on both primaries, while the secondary VLAN is present on both secondaries. Audio is then carried to both VLANs, and control is shared and only available on the primaries.
- **Remote modes:** this adds additional VLAN's for control traffic only. Dante architecture for audio transport uses a separate processor that provides the web interface, control for Ember+ and the proprietary UDP-based protocol. This allows the audio and control protocols to be separated onto different networks. These modes are:
    - **Remote SFP mode**
    - **Remote RJ45 mode**

Fig 1. Mode traffic behaviour table.

Mode	Primary Ethernet Port	Secondary Ethernet Port	Primary SFP	Secondary SFP
Switched	Audio & Control	Audio & Control	Audio & Control	Audio & Control
Redundant	Primary Audio & Control	Secondary Audio	Primary Audio & Control	Secondary Audio
Remote SFP	Primary Audio	Secondary Audio	Control	Control
Remote RJ45	Control	Control	Primary Audio	Secondary Audio

Features of Remote Mode

- Dante audio is carried on the Primary and Secondary VLANs only.
- The dedicated control VLAN carries the web UI, Ember+, and the proprietary UDP control protocol.
- The control VLAN is available on both SFP or Ethernet ports and provide access to the same control interface and therefore share a single IP address. They are intended as alternative connection points rather than separate network interfaces.
- Separating control from the Dante audio network can simplify network design and improve traffic isolation.
- Correct switch and VLAN configuration are required for successful operation.