

CONNECT Trio

Dual POTS, ISDN & VoIP Interface

Intelligent and seamless interfacing to the outside world is the key to success for many intercom applications. Connect Trio combines three kind of interfaces into one compact device connecting your intercom system to PSTN public telephone networks, ISDN or VoIP.

Connect Trio combines two independent audio codecs in one half-rack/1RU device which can be used in three different modes: POTS, ISDN and VoIP. This not only saves rackspace and eliminates the need for additional equipment, but also provides enhanced flexibility to the intercom installation. These are valuable advantages, especially for mobile production units.

Analog POTS operating mode

Connect Trio utilizes two telephone hybrids providing a frequency range of 300 Hz to 3.4 kHz. Advanced DSP functions guarantee optimal audio quality. Automated echo cancelling suppresses both line echos from analog telephone lines and echos from callers' telephones. Furthermore, every hybrid provides automatic gain control (AGC) and an expander for noise reduction.

ISDN operating mode (optional)

In ISDN operating mode two audio codecs are available, each with either G.711 or G.722 algorithms. The G.722 audio codec provides high quality audio with 7 kHz audio bandwidth and a coding delay of less than 10 ms. Connect Trio can transmit and receive two separate audio channels over one single BRI interface. This allows two separate connections to different destinations to be established. Each audio codec uses one ISDN-B channel (64 kbit/s). It is possible to use different codecs (G.711 or G.722) for each of the two B-channels. The device automatically detects the codec capabilities of the remote site and switches to 3.1 or 7 kHz mode. If there is an incoming call, the device also selects the correct mode automatically.

Key Features

- Dual analog POTS telephone hybrid
- Dual ISDN audio codec
- Dual VoIP audio codec
- 7 kHz (G.722) and 3.1 kHz (G.711) coding algorithm
- Digital echo canceling (100ms)
- Automatic Gain Control (AGC)
- Auto format detection for incoming calls
- Auto answer & auto disconnect
- Intuitive user control interface
- Full integration with Artist intercom systems
- Ability to remote Artist control panels via ISDN
- SIP and EBU TECH 3347 compliant

VoIP operating mode (optional)

In VoIP operating mode Connect Trio provides two independent audio codecs, each with G.711 and G.722 algorithms. The device is designed to transport quality audio with low bandwidth over digital IP-based networks. To meet the specific demands of high-quality VoIP communications the device features automated echo cancelling up to 100 ms. Like all Riedel Voice-over-IP solutions, Connect Trio establishes the connections via the SIP protocol and is fully compliant with the Intercom-over-IP standard EBU Tech 3347.

Artist Integration

Connect Trio is designed to be fully compatible with all intercom systems and integrates seamlessly with Artist systems. For direct connection to analog or digital matrix ports the device provides both transformer balanced analog and digital AES3/EBU audio I/Os.

CONNECT Trio (Front View)



CONNECT Trio (Rear View)



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Remote panel

When used with Artist intercom systems you can also remote control panels via ISDN and dial up your home studio from your off-site location, thus gaining full access to all of your home intercom destinations and resources at minimum line costs.

Operation

The interface can be operated directly from the Director software. The system can also be controlled via the integrated keypad and the large full graphic display. The intuitive user interface makes operation easy. The integrated telephone book not only stores telephone numbers but also system settings for each number as well. Connections can be established directly at the device. If used with an Artist intercom system, connections can be comfortably established directly via the intercom control panel.

Mounting

Each Connect Trio is delivered with a rackmount set for 19" racks as standard. An additional rackmount set for mounting two units in 19"/1RU is available.

Specifications

Network interfaces:	2x analog POTS 1x ISDN BRI / 2x ISDN-B channel (optional) 1x LAN / 2x VoIP channel (optional)
ISDN protocol:	DSS-1 (Euro ISDN), NI-1 (US), Japanese ISDN, ISDN leased lines
Coding algorithms	ITU G.711 (3.1 kHz) ITU G.722 (7 kHz)
No. of audio codecs	2x (POTS operating mode) 2x (ISDN operating mode) 2x (VoIP operating mode)
POTS operating mode	3.1 kHz analog POTS
Signalisation ISDN	Rec. ITU-T J.52
ISDN operating modes	SRT (Statistical Recovered Timing) 3.1 kHz encoded at 64 kbit/s 7 kHz encoded at 48/56 kbit/s (J.52) 7 kHz encoded at 64 kbit/s (SRT)
VOIP operating modes	3.1 kHz (ITU G.711) 7 kHz (ITU G.722)
Control/data interfaces	1x LAN 1x RS232 PC control interface User I/O (4x TTL, 2x Relays)
Audio interfaces	2x Analog Audio I/O Digital AES3/EBU audio interface with sample rate converter
Audio level	-3 dBu - +9 dBu (adjustable via config software)
Frequency range POTS	300 Hz - 3.4 kHz
Frequency range ISDN	50 Hz - 3.4 kHz (ITU G.711) 50 Hz - 7 kHz (ITU G.722)
Frequency range VOIP	50 Hz - 3.4 kHz (ITU G.711) 50 Hz - 7 kHz (ITU G.722)
Power	12V AC (external power supply) / 10W / no fans
Dimensions (W x H x D)	220 x 45 x 220 mm (1/2 19", 1RU)
Weight	1.7 kg
Approvals	CE, UL, FCC

