

i-Mix G3

TLM600

IP POTS AUDIO CODEC



**WIRELESS
3G/4G
COMPATIBLE**

**For Live Sports Commentary
& Remote Broadcasting**

BUILT TOUGH

All the features of a remote truck in a single box...

The i-Mix is a robust, reliable and flexible multi-faceted audio codec that can be used as a mixer, a full-duplex commentary control unit, and a audio codec. It also features an onboard IP codec and POTS codec, a PA output and a telephone coupler for managing live talkback callers.

Ideal for sports broadcasts, talk shows, music and other live events, the Tieline i-Mix codec combines 6 essential live outside broadcast products into a single light-weight box, replacing tens of thousands of dollars of broadcast equipment.

A module expansion slot accepts your choice of Tieline hardware plug-in modules, delivering the ability to send high quality, low-delay live audio over a wide range of wired IP, wireless 3G/4G networks, POTS/PSTN analog telephone lines, ISDN, X.21, GSM and B-GAN satellite networks.

FLEXIBLE INPUTS/OUTPUTS
Software configurable front panel communications buttons for real-time IFB mix-minus communications and talkback, plus 4 additional programmable 'softkeys' and 'hotkeys'.

6 NETWORK INTERFACES
Your choice of Wireless 3G/4G (cellular broadband), Wired IP (on board), POTS (on board), ISDN, GSM, Satellite and X.21. Buy only what you need.

HIGH QUALITY ALGORITHMS
Industry Standard and loss-tolerant low bit-rate algorithm options including MPEG Layer II, Tieline Music & MusicPLUS, Tieline Voice, G.711 & G.722 - Uncompressed Audio.

TAKE LIVE CALLERS
An onboard phone coupler for managing live callers in the field.

EBU N/ACIP COMPATIBLE OVER IP...
All Tieline codecs are EBU N/ACIP Tech 3326 compatible over IP with other codec manufacturers using these standards. Tieline is committed to developing new IP and wireless applications that take advantage of emerging network infrastructures around the globe.



BUILT TOUGH TO PERFORM RELIABLY EVERY SINGLE DAY IN DEMANDING REMOTE BROADCAST ENVIRONMENTS...

Thousands of Tieline customers around the world use the i-Mix G3 portable IP audio codec to deliver rock-solid remote broadcasts every single day! The i-Mix G3 lets you choose only the plug-in modules you need to maximize affordability, while also providing reliable auto-reconnect and automatic failover to connections that suit your broadcast requirements.

COMMAND & CONTROL OPTIONS

- On-board relay and RS-232 control system for local and remote control of equipment at either end of your codec link
- Control your remote talent's audio input levels from the studio.
- LAN, USB and serial interfaces for PC remote control.

Tieline 
The Codec Company

AUDIO SPECIFICATIONS

Audio Inputs	5 x Female XLR and 1 x RCA Aux
Audio Outputs	2 x Male XLR and 1 x RCA Aux
Headphones	4 x 6.35mm (1/4") Jacks
A/D & D/A Converters	24 bit sigma-delta
IP & 3G IP Sample Frequencies	16kHz, 32kHz
Linear PCM Sampling	16kHz, 24kHz, 32kHz, 48kHz with 12, 16, 20, 24 bits per sample
POTS Sample Frequencies	16kHz, 32kHz
ISDN Sample Frequencies	16kHz, 24kHz, 32kHz, 48kHz
X.21/V.35 Sample Frequencies	16kHz, 24kHz, 32kHz, 48kHz
GSM Sample Frequencies	16kHz, 32kHz
Input Impedance	5 Kohm balanced
Output Impedance	< 50 ohm Balanced
Clipping Level	+18 dBu (inputs and outputs)
Frequency Response	20Hz-24kHz PCM; 20Hz-22kHz over IP/ISDN; 20Hz-15kHz POTS/GSM
Total Harmonic Distortion	<0.01% at 4dBu
Signal To Noise Ratio	Better than 84dB at +4dBm

CODING & COMPRESSION ALGORITHMS

IP	Timeline Music & MusicPLUS; Voice G3; Linear PCM; G.711, G.722, MPEG Layer 2
Wireless IP/3G	Timeline Music; Timeline MusicPLUS; Voice G3, G.711, G.722, MPEG Layer 2
POTS	Timeline Music; Voice G3;
ISDN	Timeline Music, Timeline MusicPLUS, MPEG Layer 2, G.711, G.722
X.21/V.35	Timeline Music, Timeline MusicPLUS, Linear PCM, MPEG Layer 2, G.711, G.722
GSM	Timeline Music, Voice G3

DATA AND CONTROL INTERFACES

LAN	10/100 base-T, RJ45 connector for IP audio and LAN connections
Serial RS232 (DB9)	RS232 up to 115Kbps, with or without CTS/RTS flow control
	Data interface port can be used as a proprietary data channel

PANEL CONTROLS

Keypad	20 Key
Display	4 x 20 line LCD
Level Indicators	2 x 10 level LEDs with configurable source
Channel On/Off	Volume controlled and matrix router configurable
Cue/intercom	Matrix router configurable
Headphone Monitoring	Volume controlled for each channel
Send Return Mix	Switch between audio send/return or a mix of both
Programmable Hotkeys	4 software configurable Hotkey buttons

GPIO RELAY CONTROLS

Inputs	2 x inputs: Contact Closure to ground with internal 5V feed at 5mA
	0.15" pitch male phoenix connectors. (12V power connector has two relay inputs for power sensing, one independent and 1 duplicated with phoenix connector
Outputs	2 x outputs: floating solid state switching 48V 100mA
Relay Expansion	Expandable to 8 in and 8 out using optional CAN8+8 product

GENERAL

Operating Temperature	5°C to 45°C (40°F to 115°F)
Power	12V DC, 1A (without plugin modules) 4 PIN male XLR connector
Dimensions	385 x 210 x 215 mm or 3 x 15.2 x 8.5 inches
Weight	2kg or 4.4lbs

MODULE INTERFACES

3G	GSM/UMTS/HSDPA and EV-DO wireless modules available
4G	3rd party accessories required
ISDN	RJ45 Basic Rate S/T; up to 2B channels per module
POTS/PSTN	POTS Modem module with RJ11 connector
GSM	HSCSD 14.4 to 28.8Kbps and CSD 9.6Kbps (requires SIM card)
X.21/V.35	Male DB15; up to 384Kbps compressed, 2Mbps uncompressed
Satellite ISDN	External Satellite phone can be connected to an ISDN module or IP port



AUDIO OVER IP-THE INTERNET REVOLUTION ...

Attach the i-Mix G3 to a LAN network port or directly into an ADSL router and deliver up to 22kHz mono and stereo audio over DSL, cable, LAN, WAN and wireless 802.11x broadband networks. Uncompressed (Linear PCM) 24-bit high quality stereo for studio-to-studio managed IP links is also available.

3G/4G WIRELESS FREEDOM...

Choose a dedicated 3G wireless UMTS/HSDPA/HSUPA or EVDO Rev 0/Rev1

module to broadcast up to 22kHz live wireless stereo audio from any location with wireless broadband access. Connect over 4G using 3rd party accessories.

DIGITAL ISDN

Plug in an ISDN module for mono or stereo 64/128Kbps ISDN connections.

ROCK-SOLID 15KHZ POTS

Use the onboard POTS modem to deliver up to 15kHz mono bidirectional audio over a telephone line

- Add a POTS module and use two phone lines to send program audio to two sites
- Use 1 channel for program and the other for off-air IFB communications or data
- Bond two POTS connections for phase-locked 15kHz stereo

X.21/V.35*

Plug in the optional X.21 module for mono 64/128 Kbps links, or stereo 64/128/256/384/2000Kbps connections over X.21 networks.

* Leased line mode only

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Tieline offers a comprehensive
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