

# COMMANDER G3 TLR300B2



ON AIR

WIRELESS  
3G/4G  
COMPATIBLE

## ANCHOR YOUR REMOTES WITH ROCK SOLID RELIABILITY

**THE COMMANDER G3 IS ONE OF THE MOST FLEXIBLE, ROBUST AND RELIABLE RACK MOUNT IP AUDIO CODEC IN THE WORLD TODAY...**

Thousands of radio and TV broadcasters around the world use the rack-mount Commander G3 to deliver rock-solid broadcasts every single day.

Whether you need to connect using analog or digital AES/EBU in/out, control your codec completely using a remote PC graphical user interface, or program automatic switching to your choice of connection transport, the Commander G3 is your ideal solution.

### EBU N/ACIP COMPATIBLE OVER IP...

All Tieline hardware 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 3GIP applications that take advantage of emerging network infrastructures around the globe.

**BUILT TOUGH TO PERFORM RELIABLY EVERY SINGLE DAY IN THE MOST DEMANDING BROADCAST ENVIRONMENTS...**

Install the Commander G3 rack mount codec in a studio, remote van or transmitter site to send reliable pristine audio using a range of network interfaces including IP, ISDN, POTS, X.21 and satellite.

In demanding broadcast environments use Tieline's unrivalled software programming flexibility to auto-reconnect and failover to backup connections over your choice of connection transport in demanding broadcast environments.



Choose from Analog or Digital inputs

### A RANGE OF NETWORK INTERFACES

Onboard LAN IP port and two module slots accept your choice of POTS, ISDN/Satellite and X.21 modules. Buy only what you need.

### FLEXIBLE INPUTS/OUTPUTS

Flexible 3 input and 3 output digital mixing capability. Choose from balanced analogue 2 x mic/line input/output module, or digital AES/EBU stereo input/output module with clock reference signal input; plus 1 unbalanced auxiliary in/out.

### HIGH QUALITY ALGORITHMS

Industry Standard and loss-tolerant low bitrate algorithm options including MPEG Layer II, Tieline Music & MusicPLUS, Tieline Voice, G.711 & G.722.

### LIVE IFB COMMUNICATIONS

Configurable front panel 'softkey' and 'hotkey' buttons for programmable user functions and software configurable talkback communications button.

### SIMPLE TO PROGRAM

LAN, USB master/slave and serial interfaces for connection to PC computers for programming and remote control. Simple front panel PPM configuration buttons for input/output source selection.

### 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.

[www.tieline.com](http://www.tieline.com)

**Tieline**   
The Codec Company

## AUDIO SPECIFICATIONS

Analog Audio Input Card	(optional) 2x Female XLR and 1 x 6.35mm (1/4 inch) Auxiliary balanced jack
Analog Audio Outputs	(optional) 2x Male XLR and 1 x 6.35mm (1/4 inch) Auxiliary balanced jack
AES/EBU Audio Card 1	1 x stereo Female XLR input and 1 x Stereo Male output with Word Clock on BNC
AES/EBU Audio Card 2	1 x stereo Female XLR input and 1 x Stereo Male output with STR Reference Clock
Headphones	2 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
Input Impedance	5 Kohm balanced
Output Impedance	< 50 ohm Balanced
Clipping Level	+18 dBu (inputs and outputs)
Frequency Response	20Hz-22kHz PCM; 20Hz-22kHz over IP/ISDN; 20Hz-15kHz POTS/GSM
Total Harmonic Distortion	<0.01%
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
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	4 x 8 level LEDs: configurable source with selector button
Channel On/Off	Volume controlled and matrix router configurable
Cue/intercom	Matrix router configurable Cue-Comms button
Headphone Monitoring	1 x 6.35mm (1/4 inch) shared with Aux out, with volume and mix adjustment
Microphone Input	1 x 6.35mm (1/4 inch) balanced Auxiliary jack
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.
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	0°C to 45°C (32°F to 113°F)
Power	90-250 Volts AC, Auto Sensing 3 PIN IEC connector
Dimensions	48.5cm x 27.3cm x 8.8cm (19.09 x 10.75 x 3.46 inches)
Weight	2.83kg (6.5lbs)

## MODULE INTERFACES

3G	GSM/UMTS/HSDPA and EV-DO wireless modules available
4G	Connect over 4G using 3rd party accessories
ISDN	RJ45 Basic Rate S/T; up to 2B channels per module
POTS/PSTN	POTS Modem module with RJ11 connector
X.21/V.35	Male DB15; up to 384Kbps compressed, 2Mbps uncompressed
Satellite ISDN	External Satellite phone can be connected to an ISDN module



## AUDIO OVER IP-THE INTERNET REVOLUTION ...

Attach the Commader 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.

## DIGITAL ISDN

Plug in up to two ISDN modules for mono or stereo 64/128/256Kbps ISDN connections.

## ROCK-SOLID 15kHz POTS

- Use a single POTS module to deliver up to 15kHz mono bidirectional audio over a telephone line
- Add two POTS modules 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 channels for phase-locked 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

## COMPREHENSIVE PC CONTROL

The TLG3 codec Graphic User Interface has the capacity to provide full remote control and programming of G3 rack mount codecs.

## CHOOSE ANALOG OR DIGITAL AES/EBU INPUT MODULES

Choose from the analog XLR 2 x in/out card or stereo AES/EBU cards with BNC or XLR in/out and clock reference signal input.

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