

PTA12-100 Airborne Telephone Adapter



- POTS interface
- Artificial sidetone
- Backlighting
- Elastomeric keypad
- Flash, hold, redial
- Ring detect
- Alphanumeric phonebook
- LNK and SYS status

PTA12-100 Airborne Telephone Adapter

The PTA12-100 Dialer/Adapter is a compact Dzus mounted telephone interface with a full function Touchtone keypad and LED display.

Utilizing the 2 wire POTS (Plain Old Telephone Service) interface from the telephone, the PTA12-100 provides complete telecom control and standard DTMF (Dual Tone Multi Frequency) dialing capabilities.

The interface allows the flight crew to access the telephone system through the aircraft's audio panel maintaining full headset operation. A handset can also be used in parallel with the PTA12-100 to provide satcom system access for the cabin. The PTA12-100 can be used with many of today's airborne telephone systems including Globalstar™, Iridium, Inmarsat, and airborne cellular.

Additional features include elastomeric keypad, precision crystal controlled tones, reverse polarity protection, RF filtering, and solid state switching. The backlighting is LED for high reliability and can be adjusted to match the lighting range of the aircraft's other avionics controls.

Designed to be installation flexible, the PTA12-100 features several field adjustable settings such as mic, sidetone, DTMF and ringer output levels. Built to NAT's usual high standards, the PTA12-100 has a solid chassis design with an aluminum bezel and utilizes surface mount technology.

Hook

Provides On/Off Hook function. A green LED illuminates to indicate an Off Hook condition. The LED also flashes to indicate an incoming call.

Hold

Mutes the mic and phones audio to allow the pilots to converse without being overheard on the telephone. A green LED illuminates to indicate that this function is engaged.

Last Number Redial

Remembers the last string of numbers dialed in case of busy signals or lost connections.

Flash

Field selectable to either 90ms or 600ms, the Flash is used to provide functions such as call transfer or call waiting when supported by the telephone system.

Volume

A digital volume control eliminates any mechanical devices for higher reliability. Using the Up and Down arrows, the volume level is adjusted and set to the desired level.

Ringer Functions

The PTA12 has multiple ringer outputs. A ringer tone is generated on the phones output and/or to an independent line. A separate discreet output is provided for use with optional tone generators such as sonalerts or piezo devices.

BRT

LED display Brightness control.

ESC, ENTR, Up/Down

These features are used for Phonebook editing and selection.

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... confidence you can hear

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PTA12-100 Technical Specifications:



Mechanical:

Dimensions 1.52" H x 4.17" D x 5.77" W
(4.82" W behind panel)
39mm x 106mm x 147mm

Weight 0.8 lb
0.36 kg

Inputs:

Power 27.5 VDC nominal with
reverse and over voltage
protection

Current 200 mA

Lighting 1 mA

Microphone 150 ohms amplified
dynamic, or equivalent

POTS TIP (common),
RING (-48 VDC)
600 ohms balanced
Freq. resp. ≤ 3 dB,
350 Hz - 3.0 kHz
Distortion $\leq 5\%$ THD
Audio Noise ≤ -50 dB from
rated output

Outputs:

Phones 0 - 100 mW @ 600 ohms
Freq. resp. ≤ 3 dB,
350 Hz - 3.0 kHz
Distortion $\leq 5\%$ THD

Ringer Audio 0 - 3.6 Vrms, 600 ohms
Ringer Driver Pulled to power ground
when ringer active
(based on ringer cadence)
Open collector
250 mA @ 28VDC max.

Data:

RS232 connection to Globalstar™
satcom for system status

Adjustments:

Front Panel Volume
Display Dimming

Internal Mic level
S/T level
DTMF level
Ringer level
Receive level
Panel lights intensity
Mic Bias - On / Off
Flash - 90ms / 600 ms
Ringer audio on phones
output - Enable/Disable

Annunciators:

Hook LED On Hook - Off
Off Hook - On
Ringer On - Flashes

Hold LED On Hold - On
Off Hold - Off

LNK Legend On when satcom link valid

SYS Legend On when satcom available
for voice

Environmental Categories:

Temperature (operating) -20 C to +55 C
(survival) -55 C to +85 C

Humidity >95%

Altitude 50,000 ft

DO-160D Env. Cat. A1/D1-BAB[(SBM)(UF)]
XXXXXXZBABB[UUX]MXXXX

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REVISED	BY	DATE	DESCRIPTION

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