



XteQ, Inc.

# PADS Series 10-2

## Dual Channel Voice Terminal Unit

### Key Features

- Two channels of 4-wire intercom, Front Panel selectable.
- User has access to two conferences separately or simultaneously
- Separate conference participants can not hear or speak to each other, only to the User
- Individual volume controls for speaker and headset/handset.
- Push-To-Talk (PTT) enabled microphone audio eliminates unwanted voice activity on the net.
- 120/240VAC nominal power or 48VDC option.
- Internal 3W speaker for un-tethered monitoring of voice activity.
- Optional desk mounting cabinet for applications where 19" rack space is not available.



### General Description

The **PADS Series 10** Dual Channel Voice Terminal Unit (**S10-2 VTU**), part number X-PDL-019-2 (PADS 2000121-100 modified), is provided exclusively through XteQ, Inc. and is a straight forward solution for both point-to-point 4-wire (4W) connections and multi-user intercoms. This unit is an alternative to the single channel PADS Series 10 and supports two party lines or conference-nets. It is packaged in a standard 19" rack-mounting enclosure that measures only one rack unit high. A user can bridge themselves into one or both channels simultaneously, but the participants in the voice nets on one channel do not hear the voice activity on the other channel. An internal 3W speaker makes the VTU ideal for communication rooms, antenna pedestals or any other noisy environment that requires a shout-down connection.

### Network Connection

The standard single channel S10 VTU has two analog 4W interfaces, labeled LINE and DROP. These interfaces have been reconfigured as CHANNEL ONE and CHANNEL TWO and appear both as LINE type interfaces electrically. Each 4W interface consists of two 600 $\Omega$  balanced pairs, one pair for transmitting and the other pair for receiving. So the unit acts as an ideal end-user device to terminate 4-wire circuits or to terminate a chain of standard S10 VTU devices.

The block diagram shown in Figure 1 shows how the user can select CHANNEL ONE or CHANNEL TWO or both channels at the same time. The user is *bridged* into the voice activity on the channels if they are both selected.

A network is formed when these units are connected at the end of a daisy chain as illustrated in Figure 2. A network may be composed of one daisy chain segment or many segments connected

over a LAN, WAN or other dedicated data links; or two units may be connected to simple shout-down applications.

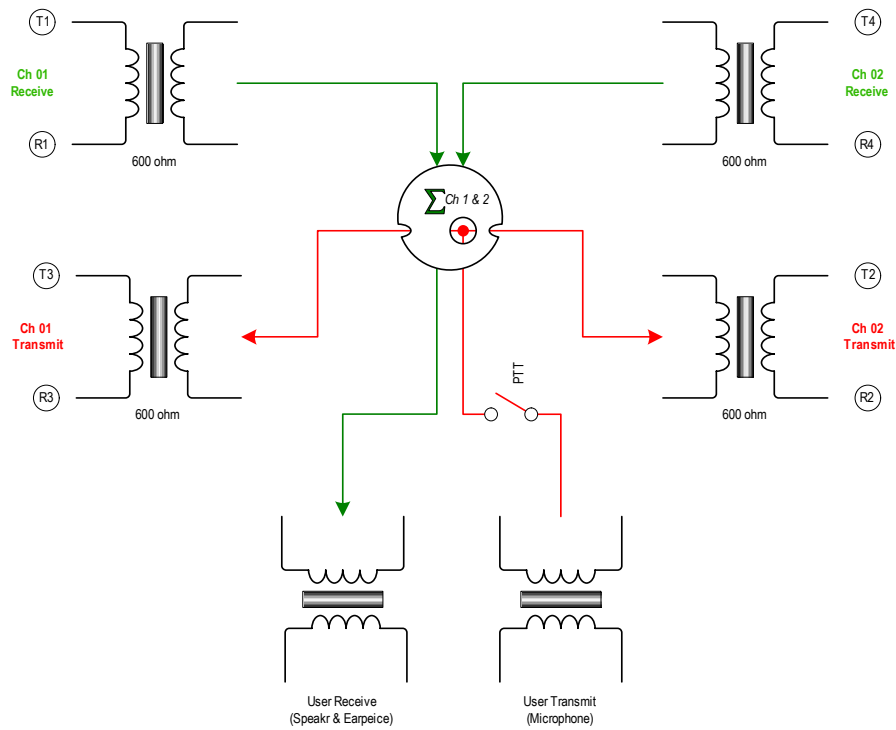


Figure 1 PADS Series 10 Dual Channel Internal Block Diagram

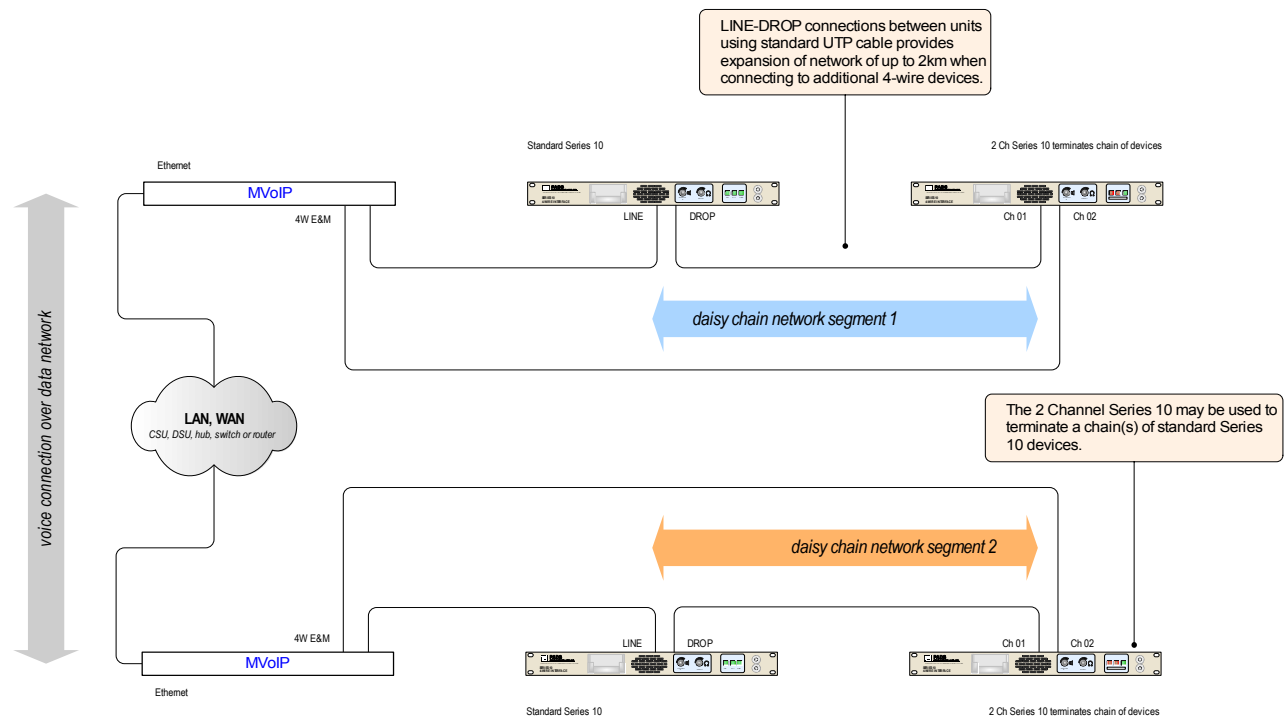


Figure 2 Network Block Diagram

**TABLE 1 LINE side connector P1 configured for Channel One**

Signal Description	P1 PIN#'s	Connecting Cable Color Codes	Pair
Power Bus (GND)	1	BLU	1
Power Bus (-24/-48VDC)	6	BLU/WHT	
Push-To-Talk (PTT) Output	2	ORG	2
	7	ORG/WHT	
Transmit Audio Output	3	GRN	3
	8	GRN/WHT	
Receive Audio Input	4	BRN	4
	9	BRN/WHT	

\* Default Configuration: P1 is wired as a standard "LINE" port by having Internal cable connected to box-header P1

**TABLE 2 DROP side connector J2 configured for Channel Two**

Signal Description	P1 PIN#'s	Connecting Cable Color Codes	Pair
Power Bus (GND)	1	BLU	1
Power Bus (-24/-48VDC)	6	BLU/WHT	
Push-To-Talk (PTT) Output	2	ORG	2
	7	ORG/WHT	
Transmit Audio Output	3	GRN	3
	8	GRN/WHT	
Receive Audio Input	4	BRN	4
	9	BRN/WHT	

Alternate Configuration: J2 is wired as a standard "LINE" port by having Internal cable connected to box-header P3