# Universal Quick Install Guide Quantum and Triton Boards

Use this guide to install Quantum boards and Triton class telephony boards, including Triton VoIP, Triton Analog Extension, Triton Analog Trunk (LS and LS/GS), Triton Resource, Triton T1/PRI, and Triton T1/E1 PRI, which are all different boards with common installation procedures.

MVIP BUS Termination Switch   MVIP Connector

Board Silhouette

Power Cable
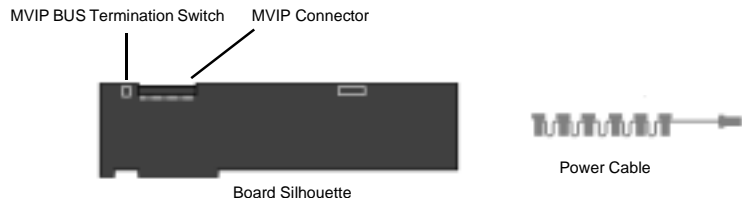
Minimum System Requirements

- IBM/PC AT compatible system with adequate number of full-size ISA and PCI slots
- Windows NT Server 4.0 with Service Pack 6A or Windows 2000 Server

Recommended AltiServ System Configurations*

Number of Quantum and/or Triton Boards per System	CPU	Memory	Power Supply	Hard Disk Controller	5V Requirement	12V Requirement
1–3	333 MHz	128 MB	Single 300W	IDE/SCSI	15A	6A or better
4–6	700 MHz	256 MB	Single 400W or Dual 400W load sharing recommended	IDE ATA-100/SCSI	20A	16A
7–16+	850+ MHz	512 MB	Dual 400W load sharing required	IDE ATA-100/SCSI	40A	20A

Individual requirements may vary depending on particular applications. Please contact AltiGen Sales Engineering or Technical Support for assistance in selecting the most appropriate system configuration for your installation.

Individual Board Power

Board	5V	12V	Slot Type
Quantum	1.6A	1.4A	ISA
Triton Analog Extension	1.6A	1A	PCI
Triton Analog Trunk LS/GS	1.6A	0.25A	PCI
Triton Analog Trunk LS	1.6A	0	PCI
Triton T1/PRI	1.6A	0	PCI
Triton T1/E1 PRI	1.6A	0	PCI
Triton VoIP	1.6A	0	PCI
Triton Resource	1.6A	0	PCI

Supported Board/Software Guidelines

Board	OE 3.5	OE 4.0	OE 4.OA	OE 4.0i	OE 4.5
Quantum	Yes	Yes	Yes	No	Yes
Triton Analog Extension	No	Yes	Yes	Yes	Yes
Triton Analog Trunk	No	No	Yes	Yes	Yes
Triton T1/PRI	Yes	Yes	Yes	No	Yes
Triton T1/E1 PRI	No	No	No	Yes	Yes
Triton VoIP-8	No	Yes	Yes	Yes	Yes
Triton VoIP-4	Yes	Yes	Yes	Yes	Yes
Triton Resource	No	Yes	Yes	Yes	Yes

Installation Procedures

Physical Board ID Arrangement

Each board has its own set of board IDs. It is recommended that you assign each board a unique ID.

- Quantum 0–F (ID "0" cannot be used in Windows 2000 server)
- Triton T1/PRI 0–3 (0–5 is only supported in OE 4.5)
- Triton T1/E1 PRI 0–3 (0–5 is only supported in OE 4.5)
- Triton Resource 0–1
- Triton VoIP 0–5
- Triton Analog Extension (12 extensions) 0–F
- Triton Analog Trunk 0–F

MVIP Clock and Termination

Note: Termination point is not related to board ID.

1. Always terminate both ends of the MVIP bus by closing the MVIP bus switch on the end point boards, regardless of the type of boards in the system. All other boards should be set in the open position. Do not have any board terminated in the middle of the MVIP bus, as this will cause an MVIP bus clocking error.

2. Run the MVIP bus test tool every time you add or remove new boards.

Configuration Tip

If your system has multiple T1/PRI or T1/E1 PRI boards, always use the board connected to the CO as MVIP clock reference. Ensure that your system is not referenced to the T1 or T1/E1 PRI board that is not connected to the CO. This may require changing the MVIP clock setting from automatic to manual, and selecting the board number connected to the CO currently in service.

Note: Handle the boards with care, and use the appropriate electrostatic discharge (ESD) protection. Mishandling can cause damage to the boards.

All Triton PCI Family and Quantum Boards

Note: *CPU can be placed anywhere.*
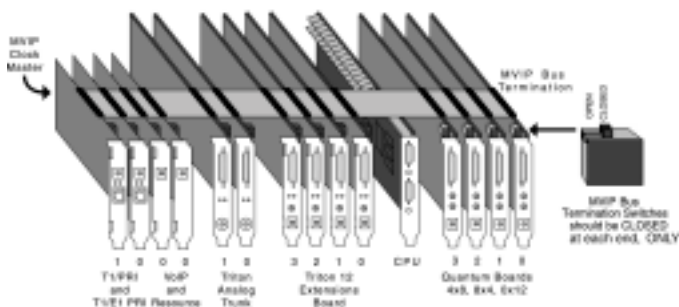

Individual Board Characteristics

Quantum Boards (ISA)

Models:

ALTI-CD0408UD-SPH001	4 Trunks, 8 Extensions
ALTI-CD0804UD-SPH001	8 Trunks, 4 Extensions
ALTI-CD0012UD-SPH001	12 Extensions
ALTI-DID0408UD-SPH001	4 DID Trunks, 8 Extensions

Each board has six voice channels, so six ports can listen to voicemail simultaneously. One port will remain active even if the system has a power failure.

The I/O switch is factory preset as shown below. Change this setting only if there is a hardware conflict.
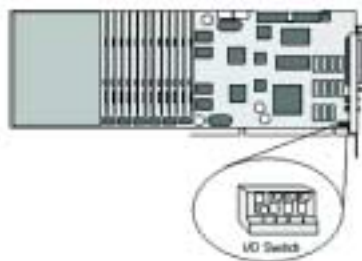
Connection Options

There are 3 connection options for connecting Quantum/Triton boards to trunks and extensions:

1. 12 Ports Bridging Adapter

Position	Channel	CD0408UD/ DID0408UD	CD0012UD	CD0804UD	TTAS-12	TTAT-12/12GS
1	0	Trunk 1	Ext. 1	Ext. 1	Ext. 1	Trunk 1
2	1	Trunk 2	Ext. 2	Ext. 2	Ext. 2	Trunk 2
3	2	Trunk 3	Ext. 3	Ext. 3	Ext. 3	Trunk 3
4	3	Trunk 4	Ext. 4	Ext. 4	Ext. 4	Trunk 4
5	4	Ext. 1	Ext. 5	Trunk 1	Ext. 5	Trunk 5
6	5	Ext. 2	Ext. 6	Trunk 2	Ext. 6	Trunk 6
7	6	Ext. 3	Ext. 7	Trunk 3	Ext. 7	Trunk 7
8	7	Ext. 4	Ext. 8	Trunk 4	Ext. 8	Trunk 8
9	8	Ext. 5	Ext. 9	Trunk 5	Ext. 9	Trunk 9
10	9	Ext. 6	Ext. 10	Trunk 6	Ext. 10	Trunk 10
11	10	Ext. 7	Ext. 11	Trunk 7	Ext. 11	Trunk 11
12	11	Ext. 8	Ext. 12	Trunk 8	Ext. 12	Trunk 12

2. 66 Punch Down Block with 50-Pin Telco Female Connector

Pair	DB 25 to Telco 50 Pin Male Cable Pin Assignment		Punch Down Block with 50 Pin Female Connector
	DB 25 Male	Telco 50 Pin Male	Pair Position
1	1	26 (Tip)	1
	2	1 (Ring)	
2	3	28 (Tip)	3
	4	3 (Ring)	
3	5	30 (Tip)	5
	6	5 (Ring)	
4	7	32 (Tip)	7
	8	7 (Ring)	
5	9	34 (Tip)	9
	10	9 (Ring)	
6	11	36 (Tip)	11
	12	11 (Ring)	
7	13	38 (Tip)	13
	14	13 (Ring)	
8	15	40 (Tip)	15
	16	15 (Ring)	
9	17	42 (Tip)	17
	18	17 (Ring)	
10	19	44 (Tip)	19
	20	19 (Ring)	
11	21	46 (Tip)	21
	22	21 (Ring)	
12	23	48 (Tip)	23
	24	23 (Ring)	

3. Patch Panel with 50-Pin Telco Female Connector
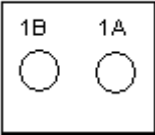
Triton Analog Extension Board (PCI)

Model: ALTI-TTAS-12   12 Extensions

Dedicated voice channel for every extension port and FSK-only message waiting.

LED Placement

1B	1A
○	○

LED Indicators		
LED 1B	**LED 1A**	**Status**
ON	ON	5V is OK; 12V is OK – normal operation
OFF	OFF	Power cable not plugged in
ON	OFF	5V less than 4.5V but more than 3V – bad PC 5V power
OFF	ON	12V less than 9V – bad PC 12V power

LED 2, located near the 12V connector, is a red LED for diagnostic purposes. If it is ON, the fuse is blown.

Audio Input

The audio input and first extension share the same physical port. The first extension port cannot be used as a physical extension when this board is assigned as a music on hold input board. The audio input port is a 3.5mm phone jack connector, with a 20k ohm impedance.

## Triton Analog Trunk Board LS/GS and LS(PCI)

This board comes in two models: Loop Start/Ground Start (LS/GS) and Loop Start only (LS). It supports 12 analog trunks and offers FSK Caller ID receiving, Centrex flash, and voice/silence activated answer supervision. This board is also compatible with major PCI chassis vendors.

Models

ALTI-TTAT-12GS   12 Trunks—Loop Start/Ground Start
ALTI-TTAT-12   12 Trunks—Loop Start

LS/GS LED Indicators*			LS LED Indicators		
LED 1B	**LED 1A**	**Status**	**LED 1B**	**LED 1A**	**Status**
ON	ON	Normal	ON	ON	Normal
OFF	OFF	No power to board	OFF	OFF	No +5V or less than 4.1V
ON	OFF	No +5V or less than 4.1V			
OFF	ON	No +12V or less than 9.2V			
LED 2, located on the board, is a red LED for diagnostic purposes. If it is ON, the fuse is blown.					

LED Placement

1B	1A
○	○
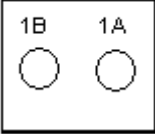
Triton T1/PRI PRI and T1/E1 PRI Boards (PCI)

Models:

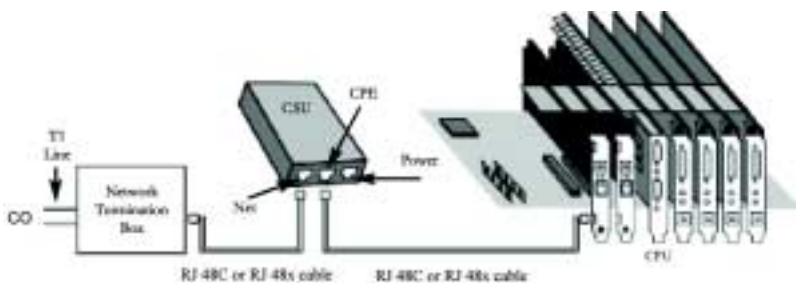|	
ALTI-TTT1-1	Software enabled for T1/PRI support. Delivers 24 channels of call processing and 24 full voicemail ports.
ALTI-T1E1-1	1 T1, 1 E1, or 1 PRI

LED Indicators		
Green LED	**Red LED**	**Status**
OFF	OFF	No power
ON	OFF	Normal operation
OFF	ON	No signal
ON	Flashing	Faulty signal with frame synchronization*
OFF	Flashing	Faulty signal without frame synchronization
Alternating	Alternating	Frame slips in normal operation
*Faulty signals include the following: yellow alarm, bipolar violation, or frame error.		

Installing Channel Service Unit (CSU) to the Triton T1 or T1/E1 /PRI Board

1. Connect the CSU (Adtran model T1 CSU ACE used as an example) to the T1/PRI or T1/E1PRI board using an RJ-48C or RJ-48X cable.
2. Connect the CSU to the network termination box using an RJ-48C or RJ-48X cable.

AltiGen T1 Socket (RJ-48)
Pin 1=Receive Ring (INPUT)
Pin 2=Receive Tip (INPUT)
Pin 4=Transmit Ring (OUTPUT)
Pin 5=Transmit Tip (OUTPUT)

Refer to your CSU manufacturer's manual for the proper pinout.

Triton VoIP Board (PCI)

Models:

ALTI-TTIP-8	8 port board
ALTI-TTIP-4	4 port board

Triton Resource Board (PCI)

Model: ALTI-TTRS-12

This board enables call center supervisors to barge in or silently monitor conversations. Up to two Resource Boards can be installed in one system. Up to 12 simultaneous supervisor silent monitoring or barge-in sessions are supported for each board.

Technical Support

End users

Contact your authorized AltiGen Dealer.

Authorized AltiGen Dealers

Call AltiGen Technical Support at 510-252-9712 x 410

Send email to: support@altigen.com

Please provide the following information so the support representative can provide fast service and a solution to your problem:

Dealer Name - ID# _____

End User Name _____

Location _____

Credit Card (if required) _____ Expiration_____

Serial #_____

AltiWare Release #_____

Server HW: CPU_____Memory_____Hard Drive_____

Number of AltiGen boards installed:
Quantum_____Triton_____
Description of the problem: