



Dialogic[®] IMG 1010 Integrated Media Gateway

IMG 1010 VoIP Module Removal/Installation Instructions

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IMPORTANT NOTE:

Please be aware that the following terminology and abbreviations are used throughout this document. Please also be sure to consult the legal notice for other important details.

When used herein, the term "IMG 1010" refers to the "Dialogic[®] IMG 1010 Integrated Media Gateway" product.

When used herein, the term "GCEMS" refers to the "Dialogic[®] Gate Control Element Management System"

Technical Support

Technical Support Number: 781-433-9600

Technical Support Fax: 781-449-9520

<http://www.dialogic.com/>

Overview:

The procedures below pertain to the removal and installation of the Dialogic® IMG 1010 VoIP Module which is located on the Dialogic® IMG 1010 Motherboard. We recommend that removal and installation be performed only by qualified technical personnel who are familiar with this procedure. Please read and fully understand the procedures below prior to performing the removal/installation.

Electrostatic Discharge Protection:

Electrostatic discharge from your body can damage integrated circuits during installation; therefore Electrostatic Discharge Protection (EDP) must always be used. Electrostatic Discharge protective straps, shoes, or mats must be used when working with electronic components.

Warranty Information

For applicable warranty information see the 'Hardware Limited Warranty' section above or visit our website at <http://www.dialogic.com/warranties>

Equipment, Tools, and Materials Required

Review the packing list to ensure that the items listed below as "Supplied" have been provided. Should any discrepancies exist between what you received and what is listed below as "Supplied", please contact your Sales representative.

Supplied

- Dialogic® IMG 1010 VoIP Module (Dialogic supplied).
- (4) M3 x 5 Phillips pan head screws. (Dialogic supplied).

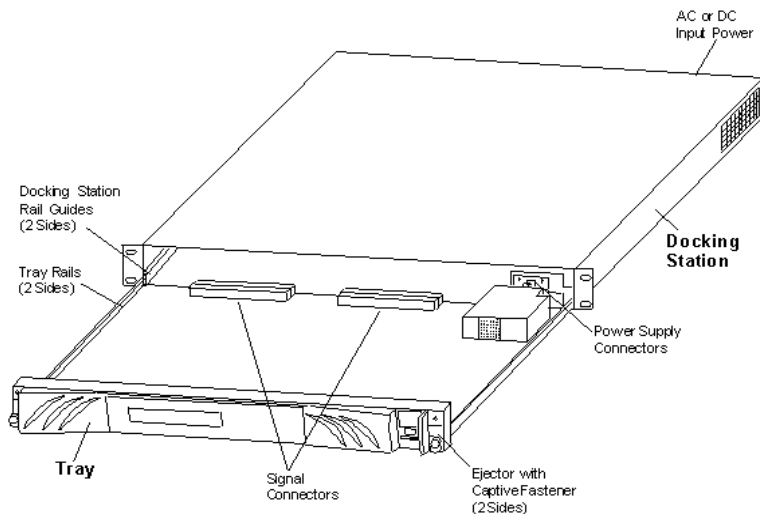
Not Supplied

- A technician's workbench meeting IPC-A-610D ESD requirements
- Mountz Model TLS0406 torque tool or equivalent
- Phillips head Bit (#1)
- Phillips screwdriver (#1)

Remove Dialogic® IMG 1010 Motherboard

1. Switch power to OFF (O) at rear of docking station.
2. Loosen the two ejector captive fasteners located on each side of the front panel.
3. Lift the ejectors upward and pull to unseat the tray from the docking station.
4. Remove 1010 Motherboard. See Diagram 1 below

Diagram 1



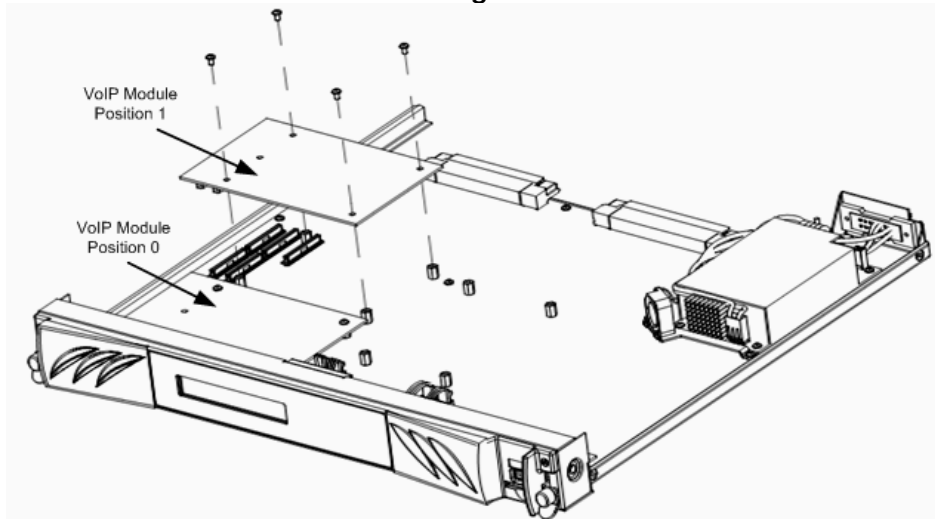
Removing the 1010 VoIP Module from the 1010 motherboard

Caution: Perform the following with care or module connector damage could occur.

1. Identify which module will be removed using Diagram below as a guide to locating the specific Module Number.

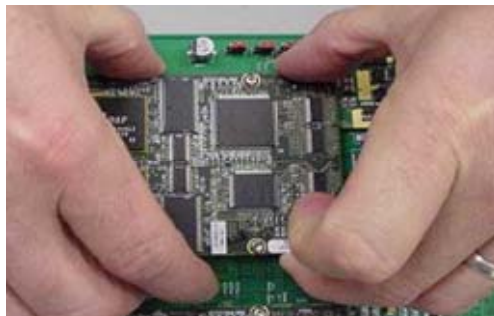
Important: The Diagram below displays two 1010 VoIP Modules. When installing only one module, it must be installed in Position 0. See Diagram 2 below.

Diagram 2



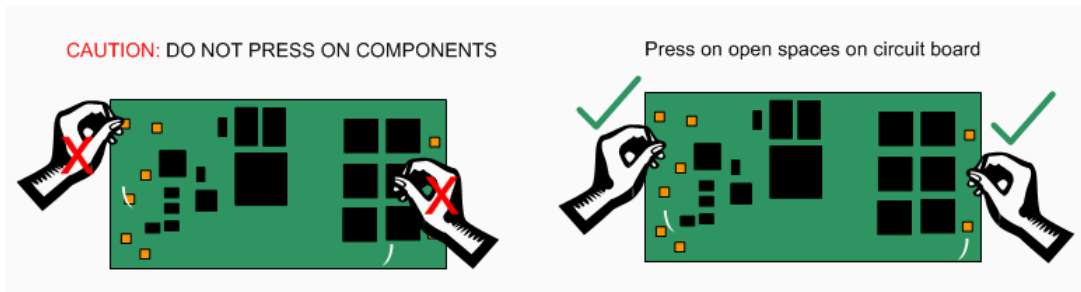
2. Using a #1 Phillips screwdriver, carefully remove the four screws that secure the VoIP module to the card. Discard the screws. **DO NOT REUSE THE SCREWS**
3. Place your index fingers and thumbs under the corners of the 1010 VoIP Module as shown in the illustration (Figure 1 below). Gently lift until the connectors start to disengage, at which point you should stop lifting. Place your index fingers and thumbs under opposite corners and repeat such that you lift a little bit more each time. Continue this process until the module is freed from the connectors.

Figure 1



Installing 1010 VoIP Module onto 1010 motherboard

1. Observing proper ESD procedures, remove the 1010 VoIP module from its ESD packaging and inspect for damage. Pay special attention to the mating connectors.
2. Position the module over the four standoffs on 1010 Motherboard.
3. Align the connectors on the 1010 VoIP Module with the connectors on the 1010 Motherboard. Before pushing the connectors together, ensure the connectors are properly aligned.
4. Apply pressure with the thumbs and index fingers on the edges of a module forming a window around the connectors. The level of pressure should not be excessive; it should be enough to firmly seat the 1010 VoIP module. **CAUTION: DO NOT APPLY PRESSURE TO ANY OF THE COMPONENTS ON THE MODULE**



5. Install the four (4) Phillips pan head screws to secure the module. Do not over-tighten the screws. (Recommended torque: 4 in-lbs (.34-.56 N-M)).
6. Once module is securely fastened to the 1010 Motherboard, reinsert the 1010 Motherboard Tray into IMG chassis. Align the rail on each side of the tray with the guides on the inside of the docking station.
7. Verify the ejectors are in the up position. Slide the tray in until the power connectors and signal connectors initially mate (the ejectors will start to move down). Use ejectors to firmly seat the 1010 Motherboard tray into the IMG chassis.

Cautions:

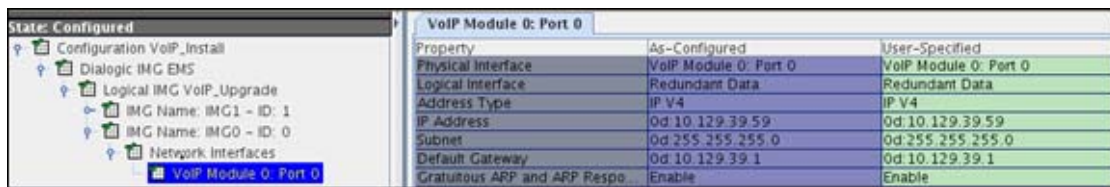
- Do not force the tray into the IMG chassis connectors. If any resistance occurs when mating with the docking station, slide 1010 Motherboard out and reseal connectors. Using undue force could damage the unit.
 - The guides only provide general alignment to the power and signal connectors. The guide pins on the main board and I/O card are self-aligning and will provide final alignment for the connectors.
 - The tray guides also act as the conduit for any Electrostatic Discharge (ESD) as the tray initially mates with the docking station.
8. When the tray is seated and the connectors are mated, push the ejectors down and tighten the captive fasteners. Reconnect power and cabling.
 9. Switch the power to ON (1) at rear of docking station and allow software to load. To configure the module, start GCEMS and ClientView. See the Dialogic Manuals website located at <http://www.dialogic.com/manuals> for information on starting GCEMS and ClientView

Configuring a 1010 VoIP Module:

The IMG 1010 has slots for two 1010 VoIP modules. When configuring the 1010 VoIP Modules, the module in position 0 is displayed in ClientView as 'VoIP Module 0'. When adding a second 1010 VoIP Module to the 1010 Motherboard the module will be displayed in ClientView as 'VoIP Module 1'. In ClientView, the existing 1010 VoIP Module in slot 0 should already be configured and the Network Interfaces object would have already been created. Follow the steps below to configure the 1010 VoIP Module being added.

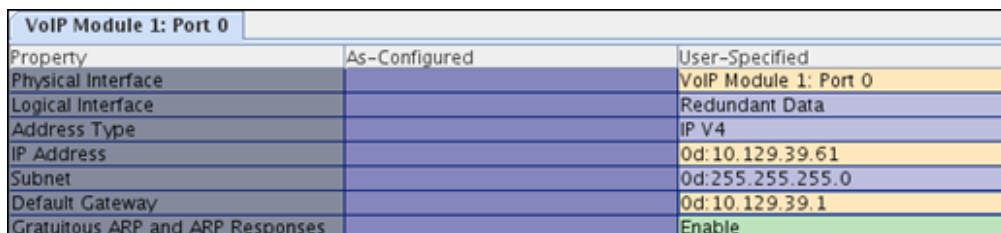
Configure Network Interface: (IMG 1010 only)

1. Before starting the configuration expand the network interfaces. It should look something like the screen capture below. In the screen capture below, VoIP module 0 refers to the VoIP module in position 0.



Property	As-Configured	User-Specified
Physical Interface	VoIP Module 0: Port 0	VoIP Module 0: Port 0
Logical Interface	Redundant Data	Redundant Data
Address Type	IP V4	IP V4
IP Address	0d 10.129.39.59	0d:10.129.39.59
Subnet	0d 255.255.255.0	0d:255.255.255.0
Default Gateway	0d 10.129.39.1	0d:10.129.39.1
Gratuitous ARP and ARP Respo	Enable	Enable

2. Right-click on the Network Interfaces object and select **New Network Interface**. The Network interface pane will appear as shown in screen capture below. Click in the Physical Interface field select Module:1 Port 0 from the drop down menu. VoIP Module 1: Port 0 is the VoIP Module being added to the IMG 1010.



Property	As-Configured	User-Specified
Physical Interface		VoIP Module 1: Port 0
Logical Interface		Redundant Data
Address Type		IP V4
IP Address		0d:10.129.39.61
Subnet		0d:255.255.255.0
Default Gateway		0d:10.129.39.1
Gratuitous ARP and ARP Responses		Enable

3. Once VoIP Module 1 has been selected, the rest of the fields can be filled in. Below is information on each of the fields.

Logical Interface - If VoIP Module 0 or 1 is selected the Logical Interface will default to Redundant Data. The VoIP Modules use the Data ports on the rear of the IMG 1010 for IP Communications.

Address Type - Only IPV4 is supported on IMG 1010

IP Address - Click in the IP address field and an "Enter IP address" box appears. Enter the IP address that will be given the VoIP Module just added.

Subnet - Click in the IP address field and an "Enter IP address" box appears. Enter the Subnet Mask that will be given the VoIP Module just added.

Default Gateway - Click in the Default Gateway field and an "Enter IP address" box appears. Enter the IP Address of the Default Gateway this interface will be connected to. (This is not a Media Gateway it is a Network Gateway)

Gratuitous ARP and ARP Responses - This field is used for the SIP-Based Load Balancing feature when creating a SIP Virtual Address. When a Virtual SIP Address is created set this field to Disable. When the Gratuitous ARP and ARP Responses is set to Disable the Virtual IP Address will not be allowed to issue a Gratuitous ARP.

Configure 1010 VOIP Module Resources

1. The 1010 VoIP module has been configured. The next step is to configure the resources for each module. If installing VoIP Module 1 then the resources for VoIP module 0 should already be configured. Below is screen capture of what the resource pane for the existing 1010 VoIP Module will look like. The next few steps will configure the resources for the module just installed.

VoIP Resource 0		
Property	As-Configured	User-Specified
Module ID	0	0
Network Interface	VoIP Module 0: Port 0	VoIP Module 0: Port 0
Network IP Address	0d:10.129.39.60	0d:10.129.39.60
Module Configuration Profile	Any Vocoder	Any Vocoder
Starting RTP Port	8000	8000
Fully Qualified Domain Name (FQDN)		
Number of Channels Configured	378	

2. Right Click on Facility object and select **New Bearer - IP**. The VOIP module/resource pane will get created. See below

VoIP Resource 1		
Property	As-Configured	User-Specified
Module ID		1
Network Interface		VoIP Module 1: Port 0
Network IP Address		0d:10.129.39.61
Module Configuration Profile		Any Vocoder (4 Picasso)
Starting RTP Port		11072
Fully Qualified Domain Name (FQDN)		
Number of Channels Configured		

3. Fill in the fields. Below is information on each of the fields.

Module ID - Automatically populated with next available module ID. Can be changed by clicking in the Module ID field and selecting from drop down menu. Selections are 0 and 1. If ID:0 is selected in the Module ID field then the VoIP Module 0: Port 0 will automatically be chosen. If ID:1 is selected then VoIP Module1: Port 0 will be chosen.

Network Interface - The Network Interface field is populated with **VOIP Module 1: Port 0** if Module ID:1 was selected in the Module ID field.

Network IP Address - Network IP address field is automatically populated with the IP address configured for the VoIP Module selected.

Module Configuration Profile - The Module Configuration Profile field informs the user what profile is configured. This is taken from the dhcpd.conf file in /etc. This field also informs user what type of module is installed. (Picasso or BroadCom). This field cannot be changed.

Starting RTP Port - The Starting RTP Port field shows the default port that the RTP stream will use. To change the Port number click in the field and a range dialog box will appear. The port number can be changed there. Once the VoIP Module/Resource pane has been committed, the port cannot be changed. The object would have to be deleted and readded to change the port number

Fully Qualified Domain Name - The FQDN will be inserted in outgoing SIP messages when FQDN is enabled in the SIP Profile. See Fully Qualified Domain Name Support for more information.

4. Allow GCEMS to configure the 1010 VoIP Module by committing the VoIP Resource Pane. Once configured, the individual ports will come into service. Click on the Object Table tab at bottom of ClientView. Modules should show **"In Service Idle"**. See below.

Object Table	Object Status	System Status	Socket Activity	
IMG Name	VoIP Module	IP Address	RTP Port	Status
KT_IMG	0	0d:10.129.10.10	8000	In Service Idle
KT_IMG	0	0d:10.129.10.10	8004	In Service Idle
KT_IMG	0	0d:10.129.10.10	8008	In Service Idle
KT_IMG	0	0d:10.129.10.10	8012	In Service Idle
KT_IMG	0	0d:10.129.10.10	8016	In Service Idle
KT_IMG	0	0d:10.129.10.10	8020	In Service Idle
KT_IMG	0	0d:10.129.10.10	8024	In Service Idle
KT_IMG	0	0d:10.129.10.10	8028	In Service Idle
KT_IMG	0	0d:10.129.10.10	8032	In Service Idle

5. For more information on the 1010 VOIP Module please see the VoIP Module pane reference in the IMG WebHelp located at <https://www.dialogic.com/manuals>.