



Communications Test Design, Inc.

iMarc[®] 9783 & iMarc[®] 9788

Quick Reference

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Email: NCservice@ctdi.com

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Communications Test Design, Inc.
1353 Enterprise Drive
West Chester, PA 19380
USA

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Product Documentation

The complete product documentation is available at www.ctdi.com/ProductsPortfolio/tabid/2475/Default.aspx.

Select the following documents:

- Installation Instructions
 - 9783: document 9783-A2-GN10
 - 9788: document 9788-A2-GN10
- User's Guide, document 9700-A2-GB20

Getting Started

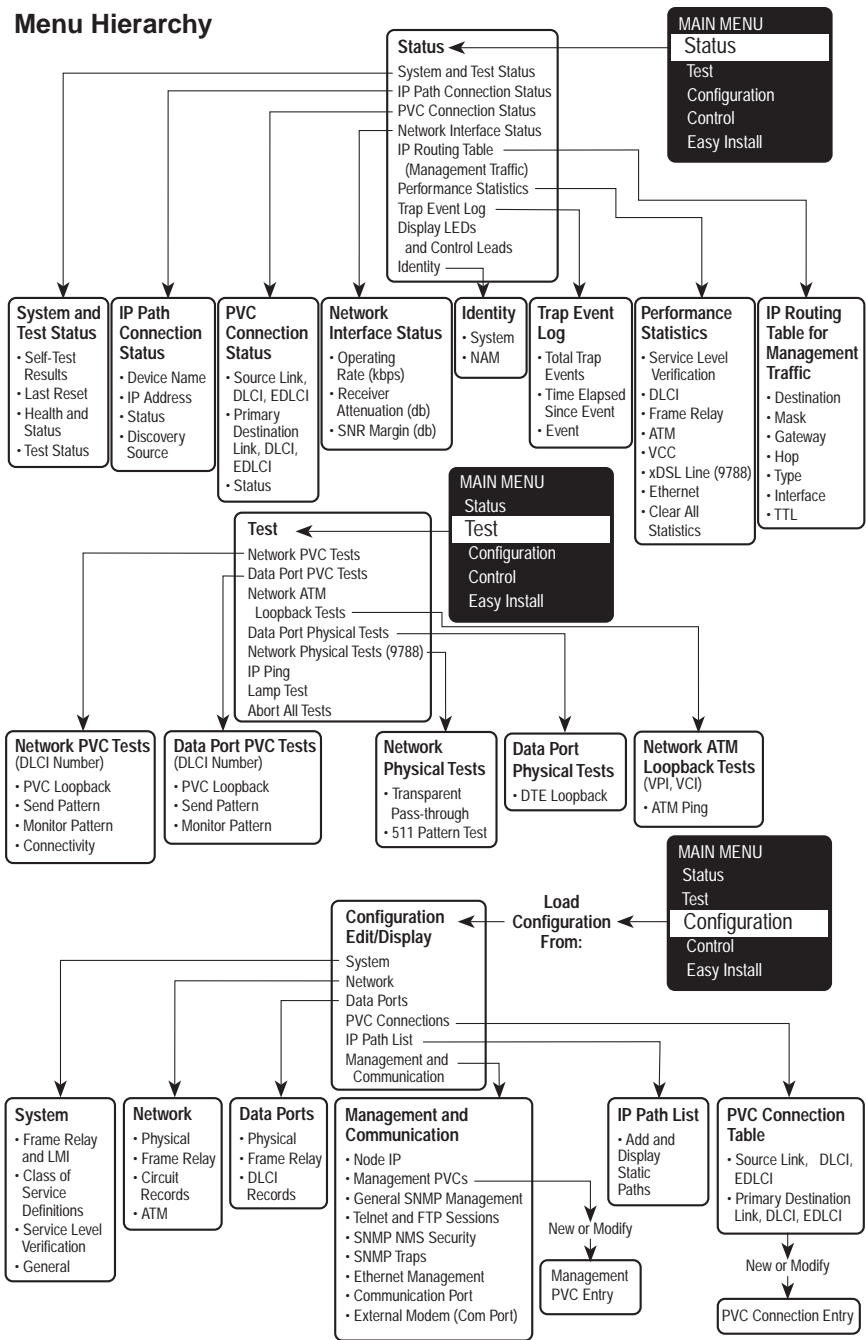
Refer to the iMarc 9783 or to the iMarc 9788 Installation Instructions to install and set up, respectively, the iMarc 9783 or the iMarc 9788.

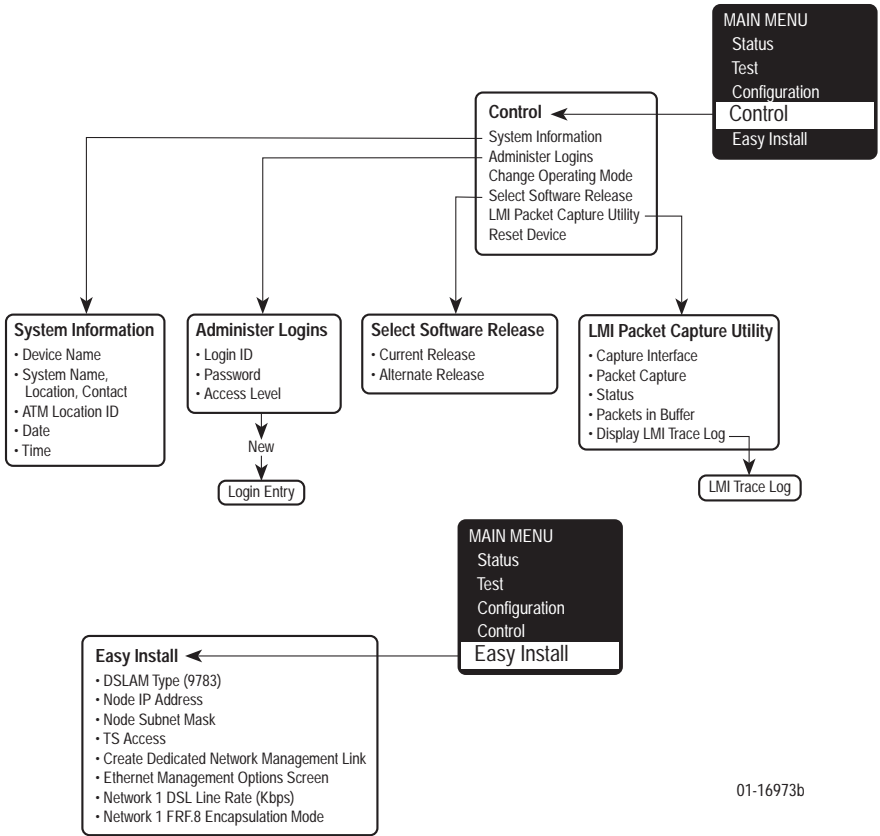
Refer to the User's Guide to get information about the unit

Menu Hierarchy

The Menu Hierarchy shows a pictorial view of the organization of the iMarc unit's screens, which can help you navigate the menus and access information.

Menu Hierarchy





01-16973b

Configuration Option Summaries

The following sections summarize the configuration options accessed when you select Configuration from the Main Menu.

System Configuration Options

From the Configuration menu, select System to configure options applicable to the entire system.

- Frame Relay and LMI
- Class of Service Definitions
- Service Level Verification
- General

Frame Relay and LMI

Select Frame Relay and LMI to configure frame relay and Local Management Interface options for the entire system.

Frame Relay and LMI	
Configuration Option	SettingsDefault in [Bold]
LMI Behavior	Independent, Port-1_Follows_Net1-FR1, Net1-FR1_Follows_Port-1, [Port-1_Codependent_with_Net1-FR1]
LMI Error Event (N2)	1–10 [3]
LMI Clearing Event (N3)	[1]–10
LMI Status Enquiry (N1)	1–255 [6]
LMI Heartbeat (T1)	5, [10], 15, 20, 25, 30
LMI Inbound Heartbeat (T2)	5, 10, [15], 20, 25, 30
LMI N4 Measurement Period (T3)	5, 10, 15, [20], 25, 30

Class of Service Definitions

Select Class of Service Definitions to configure class of service and code point definitions.

Class of Service Definitions	
Configuration Option	Settings Default in [Bold]
Class of Svc Name	<i>ASCII text</i> (8 characters)
Measure Latency & Availability	N, Y
Code Points Assigned	N, Y
Code Point Definitions	
Code Pnt	000000–111111
ID	1–7
Name	<i>ASCII text</i> (8 characters)

Service Level Verification

Select Service Level Verification to configure the SLV options for the CSU/DSU.

Service Level Verification	
Configuration Option	Settings Default in [Bold]
SLV Sample Interval (secs)	10–3600 [60]
SLV Synchronization Role	[Tributary] , Controller, None
SLV Type	Standard, COS 1–COS 7
SLV Delivery Ratio	Enable, [Disable]
DLCI Down on SLV Timeout	Enable, [Disable]
SLV Timeout Error Event Threshold	1–20 [3]
SLV Timeout Clearing Event Threshold	[1] –20
SLV Round Trip Latency Error Threshold (ms)	50– [10000]
SLV Latency Clearing Event Threshold	1–20 [2]
SLV Packet Size (bytes)	[64] –2048

General

Select General to configure a timeout period and duration for user-initiated loopbacks and pattern tests.

General	
Configuration Option	Settings Default in [Bold]
Test Timeout	[Enable] , Disable
Test Duration (min)	1–120 [10]

Network Configuration Options

From the Configuration menu, select Network to configure options applicable to the network interfaces.

- Physical
- Frame Relay
- Circuit Records
- ATM

Physical

Select Physical to configure physical characteristics for the DSL network interface.

Physical (9783)	
Configuration Option	Settings Default in [Bold]
Line Rate Mode	Hunt, [AutoRate], Fixed
DSL Line Rate (Kbps)	<i>The default and available line rates depend on the setting of DSLAM Type. See Easy Install in the Installation Instructions.</i> 144, 192, 208, 256, 272, 384, 400, 512, 528, 768, 784, 1024, 1152, 1168, 1536, 1552, 2320
SNR Margin Alarm Threshold (dB)	-5, -4, -3, -2, -1, 0, 1, 2, [3], 4, 5, 6, 7, 8, 9, 10

Physical (9788)	
Configuration Option	Settings Default in [Bold]
Line Rate Mode	[AutoRate], Fixed
DSL Line Rate (Kbps)	<i>If PSD Mask is Symmetric:</i> 200, 264, 328, 392, 456, 520, 584, 648, 712, 776, 784, 840, 904, 968, 1032, 1096, 1160, 1224, 1288, 1352, 1416, 1480, 1544, 1552, 1608, 1672, 1736, 1800, 1864, 1928, 1992, 2056, 2120, 2184, 2248, 2312 <i>If PSD Mask is Asymmetric and Region Setting is Annex A:</i> 776, 784, 1544, 1552 <i>If PSD Mask is Asymmetric and Region Setting is Annex B:</i> 2056, 2312
Region Setting	Annex A, Annex B
PSD Mask	[Symmetric], Asymmetric (in future release)

Frame Relay

Select Frame Relay to specify whether Traffic Policing will be used on the DSL network interface.

Frame Relay	
Configuration Option	Settings Default in [Bold]
Traffic Policing	[Enable] , Disable

Circuit Records

Select Circuit Records to manually configure Circuit records for each interface.

Circuit Records	
Configuration Option	Settings Default in [Bold]
DLCI Number	16–1007 [blank]
VPI	0–15 [blank]
VCI	32–255 [blank]
DLCI Type	Standard, [Multiplexed] , IP Enabled
CIR (bps)	9783: [0] –2320000 9788: [0] –2312000
T_c	<i>This field displays the committed rate measurement interval in milliseconds to be used for the DLCI. Based on the CIR and B_c option settings.</i>
Committed Burst Size B_c (Bits)	[CIR] , Other
B_c	9783: [0] –2320000 9788: [0] –2312000
Excess Burst Size B_e (Bits)	9783: 0– [2320000] 9788: 0– [2312000]
Outbound Management Priority	Low, [Medium] , High

ATM

Select ATM to configure the ATM characteristics for the DSL network interface.

ATM	
Configuration Option	Settings Default in [Bold]
Cell Payload Scrambling	[Enable] , Disable
Cell Delineation Error Event Threshold	1–1000 [10]
FRF.8 Encapsulation Mode	[Transparent] , Translational
ILMI	[Enable] , Disable

Data Ports Configuration Options

From the Configuration menu, select Data Ports to configure options applicable to the user data port.

- Physical
- Frame Relay
- DLCI Records

Physical

Select Physical to configure physical characteristics for the user data port.

Data Port Physical Options	
Configuration Option	Settings Default in [Bold]
Port Type (9788)	E530, [V.35] , X.21
Invert Transmit Clock	[Auto] , Enable, Disable
Transmit Clock Source	[Internal] , External
Monitor RTS (Control)	[Enable] , Disable
Monitor DTR	[Enable] , Disable
Port (DTE) Initiated Loopback	Local, [Disable]

Frame Relay

Select Frame Relay to configure frame relay characteristics for the user data port.

Frame Relay	
Configuration Option	Settings <small>Default in [Bold]</small>
LMI Protocol	[Initialize_From_Interface], Auto_On_LMI_Fail, Standard, Annex-A, Annex-D,
LMI Parameters	[System], Custom
When LMI Parameters is set to Custom:	
LMI Error Event (N2)	1–10 [3]
LMI Clearing Event (N3)	1–10 [1]
LMI Inbound Heartbeat (T2)	5, 10, [15], 20, 25, 30
LMI N4 Measurement Period (T3)	5, 10, 15, [20], 25, 30

DLCI Records

Select DLCI Records to manually configure DLCIs for the user data port.

DLCI Records	
Configuration Option	SettingsDefault in [Bold]
DLCI Number	16–1007 [blank]
CIR (bps)	9783: [0] –2320000 9788: [0] –2312000
T_c	<i>This field displays in milliseconds the committed rate measurement interval to be used for the DLCI, based upon the CIR and B_c.</i>
Committed Burst Size B_c (Bits)	[CIR] , Other
B_c	9783: [0] –2320000 9788: [0] –2312000
Excess Burst Size B_e (Bits)	9783: 0– [2320000] 9788: 0– [2312000]
DLCI Priority	Low, Medium, [High]

IP Path List

Select IP Path List (Static) to configure the list of static path IP addresses.

IP Path List	
Configuration Option	Settings Default in [Bold]
IP Address	000.000.000.001–223.255.255.255
FWD	[No] , Yes

PVC Connections Configuration Options

From the Configuration menu, select PVC Connections to manually configure logical connections.

The CreatePVC function key on the Network Circuit Records screen provides easy configuration of PVC connections. For management PVC configuration options, see [Management PVCs](#) on page 17.

PVC Connections	
Configuration Option	Settings Default in [Bold]
Source Link	Port-1, Net1-FR1 [blank]
Source DLCI	16–1007
Source EDLCI	0–62
Destination Link	Net1-FR1
Destination DLCI	16–1007
Destination EDLCI	0–62

Management and Communication Configuration Options

From the Configuration menu, select Management and Communication to configure the CSU/DSU so it can be managed by an NMS or via a Telnet session and to select the appropriate protocols.

- Node IP
- Management PVCs
- General SNMP Management
- Telnet and FTP Sessions
- SNMP NMS Security
- SNMP Traps
- Ethernet Management
- Communication Port
- External Modem (Com Port)

Node IP

Select Node IP to configure support of the IP communication network.

Node IP	
Configuration Option	Settings Default in [Bold]
Node IP Address	001.000.000.000–223.255.255.255, [Clear]
Node Subnet Mask	[000.000.000.000] –255.255.255.255, Clear
Default IP Destination	[None] , COM, Ethernet, <i>PVCname</i>
TS Access Management Link	None, <i>PVCname</i>
TS Management Link Access Level	[Level-1] , Level-2, Level-3

Management PVCs

Select Management PVCs to configure a management PVC for in-band management. The CreatePVC function key on the Network Circuit Records screen provides easy configuration of network management PVCs.

Management PVCs	
Configuration Option	Settings Default in [Bold]
Name	<i>ASCII text entry</i> (8 characters)
Payload Managed (9783)	Enable, [Disable]
Intf IP Address	[Node-IP-Address] , Special (001.000.000.000–223.255.255.255)
Intf Subnet Mask	[Node-Subnet-Mask] , Calculate, Special (000.000.000.000–255.255.255.255)
Set DE	Enable, [Disable]
Primary Link	Net1-FR1, Port-1, Net1-ATM, Clear [blank]
Primary DLCI	16–1007 [blank]
Primary EDLCI	0–62 [blank]
Primary VPI	0–15 [blank]
Primary VCI	32–255 [blank]
Primary Link RIP	None, Proprietary, Standard_out [Proprietary] for management links on multiplexed DLCIs. [Standard_out] for management links on standard DLCIs.
Encapsulation (9783)	[Routed]

General SNMP Management

Select General SNMP Management to configure the CSU/DSU so it can be managed as an SNMP agent.

General SNMP Management	
Configuration Option	Settings Default in [Bold]
SNMP Management	[Enable] , Disable
Community Name 1	<i>ASCII text entry</i> , [public] , Clear
Name 1 Access	Read, [Read/Write]
Community Name 2	<i>ASCII text entry</i> , [Clear]
Name 2 Access	[Read] , Read/Write

Telnet and FTP Sessions

Select Telnet and FTP Sessions to configure access to the iMarc CSU/DSU through Telnet or FTP, and to specify the access level when security is required.

Telnet and FTP Sessions	
Configuration Option	SettingsDefault in [Bold]
Telnet Session	[Enable] , Disable
Telnet Login Required	Enable, [Disable]
Session Access Level	[Level-1] , Level-2, Level-3
Inactivity Timeout	[Enable] , Disable
Disconnect Time (Minutes)	1–60 [10]
FTP Session	[Enable] , Disable
FTP Login Required	Enable, [Disable]
FTP Max Transfer Rate (Kbps)	9783: 1– [2320] 9788: 1– [2312]

SNMP NMS Security

Select SNMP NMS Security to configure access to the iMarc CSU/DSU when security is required.

SNMP NMS Security	
Configuration Option	SettingsDefault in [Bold]
NMS IP Validation	Enable, [Disable]
Number of Managers	[1] –10
NMS <i>n</i> IP Address	001.000.000.000–223.255.255.255, [Clear]
Access Type	[Read] , Read/Write

SNMP Traps

Select SNMP Traps to configure desired SNMP traps and the interfaces over which they will be sent.

SNMP Traps	
Configuration Option	Settings Default in [Bold]
SNMP Traps	Enable, [Disable]
Number of Trap Managers	[1] –6
NMS <i>n</i> IP Address	001.000.000.000–223.255.255.255, [Clear]
Initial Route Destination	[AutoRoute] , Ethernet, COM, <i>PVCname</i>
General Traps	Disable, Warm, AuthFail, [Both]
Enterprise Specific Traps	[Enable] , Disable
Link Traps	Disable, Up, Down, [Both]
Link Traps Interfaces	Network, Ports, [All]
DLCI Traps on Interfaces	Network, Ports, [All] , None
DLCI Traps on Interfaces – Filter	[Normal] , Filter
RMON Traps	[Enable] , Disable
Latency Traps	Enable, [Disable]
IP SLV AvailabilityTraps	[Enable] , Disable

Ethernet Management

Select Ethernet Management to configure the route for management data on the Ethernet interface.

Ethernet Management	
Configuration Option	Settings Default in [Bold]
Status	Enable, [Disable]
IP Address	001.000.000.000–223.255.255.255, [Clear]
Subnet Mask	[000.000.000.000] –255.255.255.255, Clear
Default Gateway Address	001.000.000.000–223.255.255.255, [Clear]
Proxy ARP	Enable, [Disable]

Communication Port

Select Communication Port to configure the CSU/DSU's COM port.

Communication Port	
Configuration Option	Settings Default in [Bold]
Port Use	[Terminal] , Net Link
Data Rate (Kbps)	9.6, 14.4, [19.2] , 28.8, 38.4, 57.6, 115.2
Character Length	7, [8]
Parity	[None] , Even, Odd
Stop Bits	[1] , 2
Ignore Control Leads	[Disable] , DTR
When Port Use is set to Terminal:	
Login Required	Enable, [Disable]
Port Access Level	[Level-1] , Level-2, Level-3
Inactivity Timeout	[Enable] , Disable
Disconnect Time (Minutes)	1–60 [10]
When Port Use is set to Net Link:	
IP Address	001.000.000.000–223.255.255.255, [Clear]
Subnet Mask	[000.000.000.000] –255.255.255.255, Clear
RIP	[None] , Standard_out

External Modem – Com Port

Select External Modem (Com Port) to configure the communications port when it is connected to an external device, like a modem.

External Modem (Com Port)	
Configuration Option	Settings Default in [Bold]
External Modem Commands	[Disable] , AT
Dial-In Access	[Enable] , Disable