



CDM-Qx Satellite Modem

Software Version 1.2.1

Product Bulletin

March 8, 2006

A new software release is now available for the CDM-Qx Multi-Channel Modem with DoubleTalk™ Carrier-in-Carrier™. Below is a summary of the new functionality offered in Version 1.2.1, which can be downloaded from our web site.

DoubleTalk Carrier-in-Carrier Licensing – 1:1 Redundancy

DoubleTalk Carrier-in-Carrier 1:1 redundant operation (within same chassis) requires two DoubleTalk Carrier-in-Carrier licenses.

At 2.5 Mbps or below, each modem in the redundant configuration requires a DoubleTalk Carrier-in-Carrier license from the same tier. This allows traffic to be automatically switched between the modems. If the licenses do not match, traffic will be limited to the lower of the two DoubleTalk Carrier-in-Carrier licenses.

Above 2.5 Mbps, the backup modem does not require a license from the same tier. A 2.5 Mbps DoubleTalk Carrier-in-Carrier license can be paired with a 5, 10, or 20 Mbps DoubleTalk Carrier-in-Carrier license and still allow traffic to be switched at the higher tier's data rate.

The following table summarizes the minimum licensing requirements:

Maximum Data Rate	Online Modem License	Backup Modem License
512 kbps	512 kbps LS/CDMQX-11	512 kbps LS/CDMQX-12
1 Mbps	1 Mbps LS/CDMQX-12	1 Mbps LS/CDMQX-22
2.5 Mbps	2.5 Mbps LS/CDMQX-13	2.5 Mbps LS/CDMQX-23
5 Mbps	5 Mbps LS/CDMQX-14	2.5 Mbps LS/CDMQX-23
10 Mbps	10 Mbps LS/CDMQX-15	2.5 Mbps LS/CDMQX-23
20 Mbps	20 Mbps LS/CDMQX-16	2.5 Mbps LS/CDMQX-23

Note: The minimum symbol rate for DoubleTalk Carrier-in-Carrier operation is 128 ksps.

Conversely, the following table summarizes the maximum DoubleTalk Carrier-in-Carrier data rate if a chassis is set up for 1:1 operation:

License 1 ► License 2 ▼	512 kbps	1 Mbps	2.5 Mbps	5 Mbps	10 Mbps	20 Mbps
None	-	-	-	-	-	-
512 kbps	512 kbps	512 kbps	512 kbps	512 kbps	512 kbps	512 kbps
1 Mbps	512 kbps	1 Mbps	1 Mbps	1 Mbps	1 Mbps	1 Mbps
2.5 Mbps	512 kbps	1 Mbps	2.5 Mbps	5 Mbps	10 Mbps	20 Mbps
5 Mbps	512 kbps	1 Mbps	5 Mbps	5 Mbps	10 Mbps	20 Mbps
10 Mbps	512 kbps	1 Mbps	10 Mbps	10 Mbps	10 Mbps	20 Mbps
20 Mbps	512 kbps	1 Mbps	20 Mbps	20 Mbps	20 Mbps	20 Mbps

The shaded cells indicate the “preferred configuration” (lowest cost) from the customer’s perspective.

Management Protocols

The CDM-Qx Multi-Channel Modem now supports IP-based management protocols, including:

- Simple Network Management Protocol (SNMP)
- Web browser (http)
- Telnet

This provides added flexibility in managing the CDM-Qx in an IP-based management environment.

Spectrum Analyzer

The CDM-Qx offers a built-in Spectrum Analyzer. In order to utilize this useful tool, it was previously required that the DoubleTalk Carrier-in-Carrier license be purchased and enabled. The Spectrum Analyzer function is now available as a standard feature. It can be viewed using a stand-alone Windows-based application or a web browser.

A demodulator in the CDM-Qx chassis can be used to view the spectrum or the constellation map. However, in this mode the demodulator is not available for user data.



Figure 1. Spectrum Display



Figure 2. Constellation Display

If you have any questions about this release, please contact your Comtech EF Data sales associate.

e-mail: sales@comtechefdata.com

Voice: 1.480.333.2200

Fax: 1.480.333.2540



2114 West 7th Street
Tempe, Arizona 85281 USA
Tel: 1 480 333 2200
Fax: 1 480 333 2540
www.comtechefdata.com