

Application Note

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


DS3/ATM BER Test Setup

This document will cover the setup of a DS3 ATM test on a single VCC using the Digital Lightwave ASA312. This document will not cover circuit provisioning or interfacing with the circuit.

Initial Setup:

Begin by going to  on the "Functions Group" and then select .

Then select  Reset and then  Reset to Defaults.

The unit will take a minute or two to reload the default settings.

Next select  and then choose either  DS3 ATM Direct  DS3 ATM PLCP

The unit is now configured for DS3 ATM testing.

Processor Setup

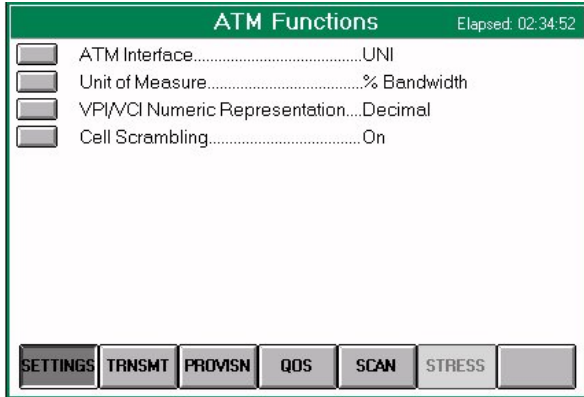
ATM:




You are now ready to begin the ATM Processor setup. Begin by entering the ATM Processor screen by selecting the ATM button at the bottom of the screen or by touching ATM on the Alarm/Status indicator portion of the screen.

From the "Function Group" select  and above it select .

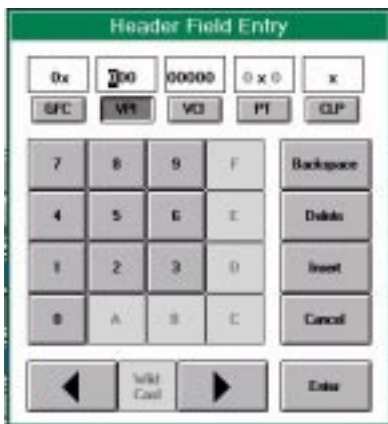
From this screen you will choose the type of ATM interface (UNI or NNI), the unit of measure (cells/second, kb/sec, mb/sec, or as a percentage of bandwidth) the VPI/VCI numeric representation (hex or decimal)


For the purpose of demonstration this procedure will use a UNI interface, measure at % of bandwidth, use decimal numeric representation, and have cell scrambling On.

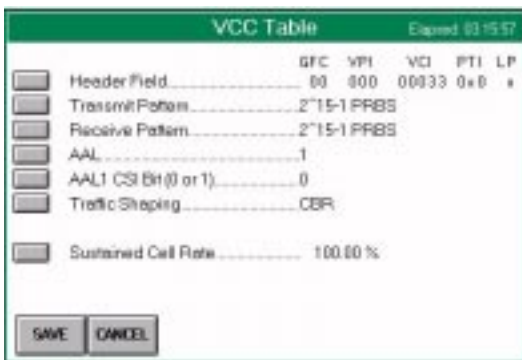


Next you will need to create the test VCC. Do this by going to  on the “Function Group” and above it select  and then .

This will bring up the VCC Header Field Entry screen. Input the test VC’s VPI and VCI values using the touch screen. This procedure will use a VPI of 0 and a VCI of 33.



Once the VPI/VCI values have been entered, the next screen to come up will allow for selection of pattern, AAL type, and traffic shaping. This procedure will use the default pattern of 2¹⁵ PRBS, AAL 1 and CBR traffic shaping at 100% of bandwidth. After entering all values select .



The VCC test VCC is now created and should be in the VCC table. To verify go to **VCC TABLE** on the “Function Group” and above it **VCC CONTROL**. The VCC entry you created should be there. Next to get “Bit” analysis you will need to turn on “Detail” for the test VCC. Do this by highlighting the test VCC and selecting **VCC RX MODE**. This should change the mode from <mon> to <det>.

VCC Table											Elapsed: 03:26:33	
#	G	VPI	VCI	PTI	LP	TX	RX	E	S	BW%		
1	00	000	00033	0x0	x	<on>	<det>					

TX ON/OFF	RX ON/OFF	ALL TX MODE	ALL RX MODE	VCC TX MODE	VCC RX MODE
VCC CONTROL	TABLE FUNCTNS	SINGLE/BURST	SUMMARY COUNTS	VCC COUNTS	

Beginning the Test

Now that the ASA312 has been configured you are ready to begin testing. First verify in the upper left corner of the ASA312 that the Laser is “On”. Next from the ATM “VCC Control” screen select **RX ON/OFF** and **RX ON/OFF**. The screen should display 100% of Bandwidth received with all “green” indicators on the Alarm/Status portion of the screen. Then while in **VCC TABLE** on the “Function Group”, select **VCC COUNTS** and if more than one VCC is in your table select “previous” or “next” until the test VCC is displayed. This will allow you to view results for the test VCC.