



Quick Reference Guide



OmniBER 725



Agilent Technologies

Agilent *OmniBER 725*

TRANSMITTER OUTPUT		SONET	
PRBS SETTINGS	JITTER	TEST FUNCTION	OVERHEAD SETUP
SIGNAL	STS-48 B1N		
CLOCK INTERVAL	OFF		
FREQUENCY OFFSET			
WPP#110 (0)	STS-48C		BACKGROUND FULL SPE BURR FILLED
PATTERN	2*23-1 PRBS	INVRT	ITU

RECEIVER INPUT		SONET	
PRBS SETTINGS	JITTER	TEST FUNCTION	OVERHEAD SETUP
SIGNAL	STS-48 B1N		
CLOCK INTERVAL	OFF		
FREQUENCY OFFSET			
WPP#110 (0)	STS-48C		BACKGROUND FULL SPE BURR FILLED
PATTERN	2*23-1 PRBS	INVRT	ITU

RESULTS POWER	JITTER GRAPH	AUTO TOLERANCE	LAST
0950 Mask: 2.920/s	Tune ft		01
10.0			14:30**
1.0			14:30**
0.1			14:30**
0.01			14:30**
100			
1K			
10K			
100K			
1M			

STATUS:

MONITOR CLASDATA	INSERT CLOCK	INSERT DATA	INSERT CLASDATA	SINGLE WINDOW
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TRANSMIT

SMART TEST

- SIGNAL
- FRAME
- PATTERN
- ERRORS
- AIS PDH/DSH
- FRAME LOSS
- M/F LOSS
- RAI / RAI (M/F)
- VP ALARM ATM
- VC ALARM
- LCD
- SELECTED CELL NOT RX
- UNLOCK JITTER
- HITS

- FRAME LOSS SDH/SONET
- LOP
- MS-AIS AIS-L
- AU-AIS AIS-P
- CLOCK LOSS
- MS-RDI RDI-L
- HP-RDI RDI-P
- TU-AIS AIS-V
- LP-RDI RDI-V
- POINTER ADJUST

HISTORY

SHOW

RESET

PAPER FEED

PRINT NOW

RECEIVE

RUN/STOP

RESULTS

SINGLE

GRAPH

REMOTE

OTHER

LOCAL

SET

POP UP

CANCEL



VGA



LID PRINTER

Introduction

This book describes how to quickly access the main instrument functions and tasks.

The following examples use SDH applications. For SONET applications, replace [SDH] with [SONET]

Setting the Transmit Interfaces

Setting SDH Transmit Interface	TRANSMIT	[SDH]	MAIN SETTINGS	
Setting Unframed SDH Transmit Interface	TRANSMIT	[UNFRAMED SDH]	MAIN SETTINGS	
Setting SDH Jitter Transmit Interface (J1409A only)	TRANSMIT	[SDH]	JITTER	
Setting SDH Wander Transmit Interface (J1409A only)	TRANSMIT	[SDH]	JITTER	
Setting SDH THRU Mode	TRANSMIT	[SDH]	MAIN SETTINGS	SIGNAL [THRU MODE]

Setting the Receive Interfaces

Using Smart Test	Smart Test
Using Smartsetup	Smart Test [RUN TEST] [RESCAN]
Setting SDH Receive Interface	RECEIVE [SDH] MAIN SETTINGS
Setting Unframed SDH Receive Interface	RECEIVE [UNFRAMED SDH] MAIN SETTINGS
Setting SDH Jitter Receive Interface	RECEIVE [SDH] JITTER

Selecting and Using Overhead Features

Using SDH Transmit Overhead Setup	TRANSMIT	[SDH]	OVERHEAD SETUP	
Using SDH Receive Overhead Monitor	RECEIVE	[SDH]	OVERHEAD MONITOR	
Setting SDH Overhead Trace Messages	TRANSMIT	[SDH]	OVERHEAD SETUP	SETUP [TRACE MESSAGES]
Receiving SDH Trace Messages	RECEIVE	[SDH]	OVERHEAD MONITOR	MONITOR [TRACE]
Setting SDH Signal Labels	TRANSMIT	[SDH]	OVERHEAD SETUP	SETUP [LABEL]
Receiving SDH Signal Labels	RECEIVE	[SDH]	OVERHEAD MONITOR	MONITOR [LABEL]
Setting SDH Synchronization Status Messages	TRANSMIT	[SDH]	OVERHEAD SETUP	SETUP [LABEL] S1 SYNC STATUS
Receiving SDH Synchronization Status Messages	RECEIVE	[SDH]	OVERHEAD MONITOR	MONITOR [LABEL]
Generating SDH Overhead Sequences	TRANSMIT	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [SEQUENCES]
Using SDH Receive Overhead Capture	RECEIVE	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [O/H CAPTURE]

Selecting and Using Signal Features

Adding Frequency Offset to the SDH Signal	TRANSMIT	[SDH]	MAIN SETTINGS	CLOCK [INTERNAL] FREQUENCY OFFSET [ON]
Adding Errors & Alarms at the SDH Interface	TRANSMIT	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [ERR & ALARM]
Adding Errors in the test pattern	TRANSMIT	[SDH]	TEST FUNCTION	TEST FUNCTION [PDH PAYLD]
Adding SDH Pointer Adjustments	TRANSMIT	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [ADJUST PTR]
Using SDH Pointer Graph Test Function	RECEIVE	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [PTR GRAPH]
Generating SDH Automatic Protection Switch (APS) Messages	TRANSMIT	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [APS MESSAGES]
Monitoring SDH Automatic Protection Switch (APS) Messages	RECEIVE	[SDH]	OVERHEAD MONITOR	[APS MESSAGES]
Inserting Data Communications Channel, SDH	TRANSMIT	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [DCC INSERT]
Dropping Data Communications Channel, SDH	RECEIVE	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [DCC DROP]

Making Measurements

Transmitting SDH Overhead BER Test Function	TRANSMIT	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [OVERHEAD BER]
Receiving SDH Overhead BER Test Function	RECEIVE	[SDH]	TEST FUNCTION	TEST FUNCTION [SDH] [OVERHEAD BER]
Test Timing	RESULTS			RESULTS [TIMING CONTROL]
Making SDH Analysis Measurements	RESULTS			RESULTS [SDH RESULTS] [ERROR ANALYSIS]
Measuring Jitter (J1409A only)	RESULTS			RESULTS [JITTER]
Measuring SDH Frequency	RESULTS			RESULTS [SDH RESULTS] [FREQUENCY]
Measuring SDH Optical Power	RESULTS			RESULTS [SDH RESULTS] [OPTICAL POWER]
Results Summary	RESULTS			RESULTS [SDH] [ERROR SUMMARY]
Trouble Scan	RESULTS			RESULTS [TROUBLE SCAN]

Making Measurements (cont'd)

Performing an SDH Tributary Scan	<div style="display: flex; align-items: center; gap: 5px;"> <div style="border: 1px solid black; border-radius: 5px; padding: 2px 5px;">TRANSMIT</div> <div style="border-left: 1px solid black; padding-left: 5px;">[SDH]</div> <div style="border-left: 1px solid black; padding-left: 5px;"> <div style="border: 1px solid black; border-radius: 5px; padding: 2px 5px; display: inline-block; text-align: center;">TEST FUNCTION</div> </div> <div style="border-left: 1px solid black; padding-left: 5px;">TEST FUNCTION [SDH TRIBSCAN]</div> </div> <div style="display: flex; align-items: center; gap: 5px; margin-top: 5px;"> <div style="border: 1px solid black; border-radius: 5px; padding: 2px 5px;">RESULTS</div> <div style="border-left: 1px solid black; padding-left: 5px;">RESULTS [SDH TRIBSCAN]</div> </div>
Performing an SDH Alarm Scan	<div style="display: flex; align-items: center; gap: 5px;"> <div style="border: 1px solid black; border-radius: 5px; padding: 2px 5px;">RESULTS</div> <div style="border-left: 1px solid black; padding-left: 5px;">RESULTS [SDH ALM SCAN]</div> </div>
Measuring SDH Jitter Tolerance (J1409A only)	<div style="display: flex; align-items: center; gap: 5px;"> <div style="border: 1px solid black; border-radius: 5px; padding: 2px 5px;">TRANSMIT</div> <div style="border-left: 1px solid black; padding-left: 5px;">[SDH]</div> <div style="border-left: 1px solid black; padding-left: 5px;"> <div style="border: 1px solid black; border-radius: 5px; padding: 2px 5px; display: inline-block; text-align: center;">JITTER</div> </div> <div style="border-left: 1px solid black; padding-left: 5px;">JITTER/WANDER [JITTER] JITTER [AUTO TOLERANCE]</div> </div>
Measuring SDH Jitter Transfer (J1409A only)	<div style="display: flex; align-items: center; gap: 5px;"> <div style="border: 1px solid black; border-radius: 5px; padding: 2px 5px;">TRANSMIT</div> <div style="border-left: 1px solid black; padding-left: 5px;">[SDH]</div> <div style="border-left: 1px solid black; padding-left: 5px;"> <div style="border: 1px solid black; border-radius: 5px; padding: 2px 5px; display: inline-block; text-align: center;">JITTER</div> </div> <div style="border-left: 1px solid black; padding-left: 5px;">JITTER/WANDER [JITTER] JITTER [TRANSFER FUNCTION]</div> </div>

Storing, Logging and Printing

Enabling Graphics Results to Instrument Store	RESULTS	[TIMING CONTROL] GRAPH STORAGE [resolution as required]
Recalling Stored Graph Results	GRAPH	TEXT RESULTS STORE STATUS
Viewing the Bar Graph Display	GRAPH	GRAPH RESULTS
Viewing the Graphics Error and Alarm Summaries	GRAPH	TEXT RESULTS
Logging Graph Displays	OTHER	FUNCTION [LOGGING] LOGGING SETUP [DEVICE]
Logging Results	OTHER	FUNCTION [LOGGING] LOGGING SETUP [CONTROL]
Logging Results to Centronics Printer	OTHER	FUNCTION [LOGGING] LOGGING SETUP [DEVICE] LOGGING PORT [PARALLEL]
Logging Results to GPIB Printer	OTHER	FUNCTION [LOGGING] LOGGING SETUP [DEVICE] LOGGING PORT [GPIB]

Storing, Logging and Printing (cont'd)

Logging Results to Internal Printer (Option 602 only)	<input type="button" value="OTHER"/>	FUNCTION [LOGGING] LOGGING SETUP [DEVICE] LOGGING PORT [INTERNAL]
Logging Results to RS-232-C Printer	<input type="button" value="OTHER"/>	FUNCTION [LOGGING] LOGGING SETUP [DEVICE] LOGGING PORT [RS232]
Logging Jitter Tolerance Results (J1409A only)	<input type="button" value="OTHER"/>	FUNCTION [LOGGING] LOGGING SETUP [DEVICE]
Logging Jitter Transfer Results (J1409A only)	<input type="button" value="OTHER"/>	FUNCTION [LOGGING] LOGGING SETUP [DEVICE]

Using Instrument and Disk Storage

Storing Configurations in Instrument Store	OTHER	FUNCTION [STORED SETTINGS]
Storing Current Configurations on Disk	OTHER	FUNCTION [FLOPPY DISK]
Setting up a Title for Configurations in Instrument Store	OTHER	FUNCTION [STORED SETTINGS]
Recalling Configurations from Instrument Store	OTHER	FUNCTION [STORED SETTINGS]
Formatting a Disk	OTHER	FUNCTION [FLOPPY DISK] DISK OPERATION [DISK] [FORMAT]
Labeling a Disk	OTHER	FUNCTION [FLOPPY DISK] DISK OPERATION [DISK] [LABEL]
Managing Files and Directories on Disk	OTHER	FUNCTION [FLOPPY DISK] DISK OPERATION [FILE]
Adding Descriptors to Disk Files	OTHER	FUNCTION [FLOPPY DISK] DISK OPERATION [DISK]
Saving Graphics Results to Disk	RESULTS	[TIMING CONTROL] GRAPH STORAGE [DISK]
Saving Data Logging to Disk	OTHER	FUNCTION [FLOPPY DISK] DISK OPERATION [SAVE]
Recalling Configuration from Disk	OTHER	FUNCTION [FLOPPY DISK] DISK OPERATION [RECALL] FILE TYPE [CONFIGURATION]

Using Instrument and Disk Storage (cont'd)

Recalling Graphics Results from Disk	OTHER	FUNCTION [FLOPPY DISK] DISK OPERATION [RECALL] FILE TYPE [GRAPHICS]
Copying Configuration from Instrument Store to Disk	OTHER	FUNCTION [FLOPPY DISK] DISK OPERATION [FILE] [COPY] [FROM:] [CONFIGURATION]
Copying Configuration from Disk to Instrument Store	OTHER	FUNCTION [FLOPPY DISK] DISK OPERATION [FILE] [COPY] [TO:] [CONFIGURATION]
Copying Graphics Results from Instrument Store to Disk	OTHER	FUNCTION [FLOPPY DISK] DISK OPERATION [FILE] [GRAPHICS]
Deleting a File on Disk	OTHER	FUNCTION [FLOPPY DISK] DISK OPERATION [FILE] [DELETE] [DELETE FILE] NAME [<select>]
Deleting a Directory on Disk	OTHER	FUNCTION [FLOPPY DISK] DISK OPERATION [FILE] [DELETE] [DELETE DIRECTORY]
Renaming a File on Disk	OTHER	FUNCTION [FLOPPY DISK] DISK OPERATION [FILE] [RENAME]
Creating a Directory on Disk	OTHER	FUNCTION [FLOPPY DISK] DISK OPERATION [FILE] [CREATE DIRECTORY]

Selecting and Using "Other" Features

Coupling Transmit & Receive Settings	<input type="button" value="OTHER"/>	FUNCTION [SETTINGS CONTROL] TRANSMITTER AND RECEIVER [COUPLED]
Suspending Test on Signal Loss	<input type="button" value="OTHER"/>	FUNCTION [MISCELLANEOUS] SUSPEND TEST ON SIGNAL LOSS [ON]
MS-REI, MS-AIS, or REI-L, AIS-L Results Enable	<input type="button" value="OTHER"/>	FUNCTION [MISCELLANEOUS] MS-REI, MS-AIS, REI-L, AIS-L RESULT ENABLE
Setting Time & Date	<input type="button" value="OTHER"/>	FUNCTION [TIME & DATE]
Enabling Keyboard Lock	<input type="button" value="OTHER"/>	FUNCTION [MISCELLANEOUS] KEYBOARD LOCK [ON]
Enabling Beep on Received Error	<input type="button" value="OTHER"/>	FUNCTION [MISCELLANEOUS] BEEP ON RECEIVED ERROR [ON]
Setting Error Threshold Indication with Color Control	<input type="button" value="OTHER"/>	FUNCTION [COLOR CONTROL]

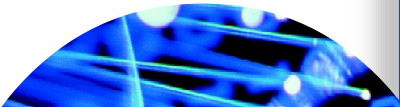
Selecting and Using "Other" Features (cont'd)

Dumping Display to Disk	<input type="button" value="OTHER"/>	FUNCTION [LOGGING] LOGGING SETUP [CONTROL] LOG ON DEMAND [SCREEN DUMP]
Setting Screen Brightness and Color with Color Control	<input type="button" value="OTHER"/>	FUNCTION [COLOR CONTROL]
Running Self Test	<input type="button" value="OTHER"/>	FUNCTION [SELF TEST]



In This Guide

Instructions on how to quickly select main instrument functions.



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