

# *Li*DMXter2<sup>tm</sup>

The Volt Meter of Digital Lighting Control

The operation of the *Li*DMXter<sup>tm</sup> is designed to be intuitive, and as user friendly as possible. Many users will never need to know the technical details. But since the *Li*DMXter<sup>tm</sup> is a piece of reasonably accurate test equipment here are the specifications in gory detail.

TRANSMITTED DMX512 PARAMETERS				
FUNCTION	DEFAULT	MINIMUM	MAXIMUM	RESOLUTION
BAUD RATE	250,000			as per DMX512
BREAK LENGTH	88µS	50µS	49144µS (1)	1µS
MARK AFTER BREAK	8µS	3µS	49064µS (2)	1µS
INTERFRAME MARK TIME	4µS	4µS	330µS	22µS
INTERPACKET MARK TIME	4µS	4µS	1.442SEC	22µS
DIMMERS TRANSMITTED	512	1	999	1
UPDATE RATE	40	.594(3)	5200(4)	NA
START CODES SENT	0	ANY	START	CODE

(1) Maximum with MAB set to 8µS , (2) Maximum with break set to 88µS, (1 or 2) The Total of break and MAB cannot exceed 49152µS . (3) 512 dimmers, 49,144us break, 8µS mark, 334µS IBT(15 units), 1.454 second IPT (65535 units), (4) 1 dimmer, 88us break, 8us MAB

RECEIVED DMX512 PARAMETERS			
FUNCTION	MINIMUM	MAXIMUM	NOTES
BAUD RATE	250,000		as per DMX512
BREAK LENGTH	65µS	-	
MAB LENGTH	3µS	-	
NUMBER OF DIMMERS	1	512	OVFL reported for over 512 dimmers
BREAK-BREAK TIME	170µS	3 SEC.	

The *FIRST* portable DMX512 test set

ACCURACY		
PARAMETER	ACCURACY	NOTES
TIMEBASE & BAUD RATE ACCURACY	+/- 75 PPM	0 - 70 Degrees C, by design, not tested in production
TRANSMITTED BREAK JITTER	NEGLIGIBLE	Timebase jitter is the major source of break jitter
TRANSMITTED MAB JITTER	NEGLIGIBLE	Start code = 0 Break + MAB less than 16.380 mS
TRANSMITTED MAB JITTER	+/- 4µS	Non-zero start code or break + mab time greater than 16,380ms
DIMMER FRAME JITTER	+/- 2µS	
SCOPE TRIGGER TO BREAK JITTER	NEGLIGIBLE	Timebase jitter is the major source of jitter
RERC'D BRK,MAB ACCURACY	+/- 250nS +/-75PPM (1)	Sum of both errors, rounded as needed for display
REC'D BREAK TO BREAK	+/-8µS	See section 5.2(5)

INPUT & OUTPUT VOLTAGE AND CURRENT LIMITS		
	VOLTAGE OR CURRENT	NOTES
DMX512-OUT PINS 2&3 MAX VOLTS MAX CURRENT	+20VDC, -12VDC(2) +/- 100 MA	Withstanding voltage & current
DMX512-IN PINS 2&3(1) MAX VOLTS MAX CURRENT	+50VDC, -30VDC +/-7 MA	Withstanding voltage & current
PIN 4&5 IN or OUT	+/-70 VDC	SCOPE TRIGGER - OFF DOUBLE ENDED CABLE TEST - OFF
PIN 4&5 OUT	+15 VDC, -5 VDC +/-100 MA	SCOPE TRIGGER - ON

(1) In terminated modes, in unterminated modes DMX512-OUT limits apply.

OPERATIONAL ENVIRONMENT LIMITS			
PARAMETER	RANGE		NOTES
AC Line Voltage Required North American Units	85 - 135 VAC 100 - 135 VAC	100mA	- To operate - To charge fully (1)
AC Line Voltage Required Europe & Other 230 volt locations	170 - 270 VAC 200 - 270 VAC	50mA	- To operate - To charge fully (1)
AC Line Frequency Required	~50-60Hz		For either voltage option
Humidity	0%to-95%		Non-condensing
Altitude	0 to 1900 meters		
Temperature	0 to 40 Degrees Celsius		

(1) At line voltages below 110 (220) volts charging time will increase markedly. At 100( 200) volts charging time will be nearly double the 120( 230) volt time.

**The FIRST portable DMX512 test set**