

DMX ANALYZER

Operating modes

DMX Timing



In this mode the timing of the incoming DMX frames is measured. A DMX frame is initialized by a Break to synchronize the finite state machine of the receivers. To separate the start code from the Break, a Mark After Break is needed. After the start code up to 512 DMX channels are transmitted. Many manufacturers insert a short delay between the channels. These inter byte gaps (aka inter slot times) help poorly designed receivers to capture the previous byte without overflows...

Regarding to ANSI E1.20, the following timing values are valid:

Break: 176 μ s - 352 μ s
MAB: 12 μ s - 88 μ s
IB-Gap: <32 μ s

Universe State



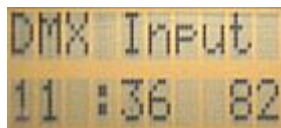
In this mode the size of the universe, the refresh rate and the error rate are measured. The refresh rate should be higher than 20Hz. The maximum universe size are 512 channels. If the start code after a Break is neither Null (normal data) nor 0xCC (RDM message), an error is counted.

DMX Overview



The values of 10 consecutive channels are displayed as bar graphs. The channels can be chosen with the Up/Down buttons.

DMX Input



The values of two consecutive channels are displayed. The channels can be chosen with the Up/Down buttons.

DMX Output Slow



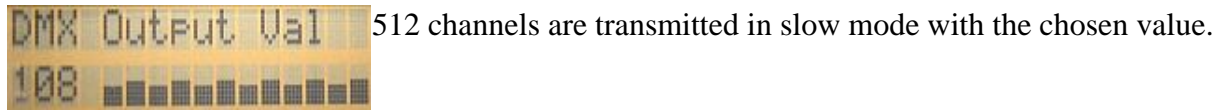
512 channels are faded up and down. The universe is transmitted slowly because of a very long Break and inter byte gaps.

DMX Output Fast



64 channels are faded up and down. The universe is transmitted very fast because of a minimum Break length and no inter byte gaps.

DMX Output Val



Push Buttons

The Analyzer is controlled by three buttons, switching the SPARE pins to GND.

Transceiver	Function
SPARE1 (PD4)	Mode
SPARE2 (PD5)	Up
SPARE3 (PD6)	Down