Flipdots display control protocols   - August 2018

Frame

0x80	Command	Address	Data	0x8F

Command –

Command	Numer of data bytes	Refresh?	Configuration
0x82	0	YES	Format (0x80, 0x82, 0x8F) – refresh of all connected displays
0x83	28	YES	28x7
0x84	28	NO	28x7
0x87	7	YES	7x7
0x92	14	YES	14x7
0x93	14	NO	14x7

Address   – device address , 255 (0xFF) is a broadcast address – all devices are receiving this transmission

Data   –   transmitted content of a display; number of data bytes depends on size of a display. One byte is one strip of dots (7 dots). LSB is upper dot, MSB (the 7th)   is lower dot. The most significant byte (8th) is ignored and should be set to zero.

Remarks:

Refresh = YES: DATA bytes are being shown on displays as soon as they are received

Refresh = NO: DATA bytes are being stored in a memory and shown on displays as soon as 0x80 / 0x82 / 0x8F sequence is received. This option helps to synchronize presentation of data. This is not supported by 7x7 displays.