Application Note 60

TMC22x5y input data ranges

There is no fixed input data range to the TMC22x5y family of digital decoders, as the programmable output matrix allows up to 6dB of gain on the luminance and color difference signals. The following data ranges for 100% composite and YC color bar inputs is for reference only.

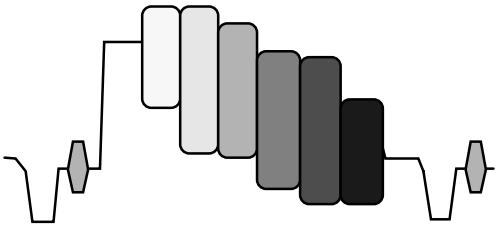

Figure 1: Composite video waveform

Color bar	NTSC/M		PAL/I	
	Y	C	Y	C
white	824	0	828	0
Yellow	762	± 242	763	± 257
Cyan	663	± 341	657	± 362
Green	601	± 319	592	± 338
Magenta	507	± 319	492	± 338
Red	445	± 341	426	± 362
Blue	345	± 242	321	± 257
Pedestal	284	0	n/a	n/a
Blanking	240	0	256	0
Burst	0	± 117	0	± 122
sync tip	6	0	10	0

Table 1: 10 bit composite input data ranges

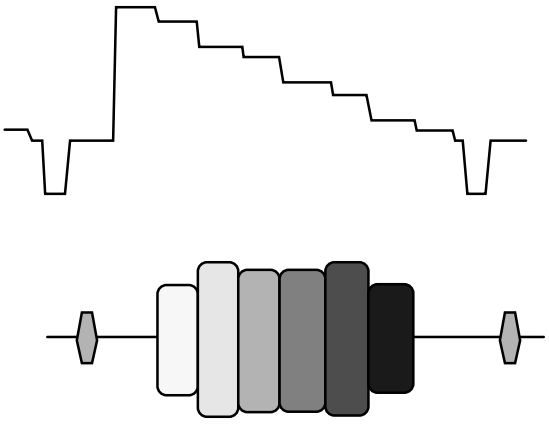

Figure 2: YC video waveforms

Color bar	NTSC/M		PAL/I	
	Y	C	Y	C
white	1008	0	1008	0
Yellow	933	± 347	928	± 355
Cyan	811	± 488	799	± 499
Green	735	± 456	719	± 467
Magenta	620	± 456	597	± 467
Red	545	± 488	517	± 499
Blue	433	± 347	388	± 355
Pedestal	348	0	n/a	n/a
Blanking	294	0	308	0
Burst	0	± 167	0	± 170
sync tip	8	0	8	0

Table 2: 10 bit YC input data ranges

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7/21/98 0.0m 001
Stock#AN30000060
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