

ANTIALIASING AND RECONSTRUCTION FILTERS

TFT RANGE YUV COMPONENT SAMPLING

These very small, low cost filters are intended for use with A-D and D-A video converters where some deviation from full ITU-R BT601 standard can be tolerated, ie single pass applications. These filters are designed for use in 4:2:2 sampling systems, ie 13.5 MHz for the luminance (Y) channel and 6.75 MHz for the chrominance (U and V) channels.

- Ideal for single pass or monitor outputs
- Choice of package format to suit requirement

• Small size

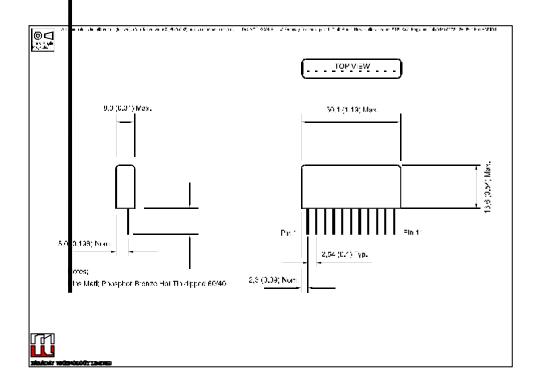
• Excellent pulse characteristics

| Type Number | TFT1350F | TFT1350S | TFT0675F | TFT0675S |
|---|-----------------------|-----------------------|---------------|-----------------------|
| Impedance (ohms) | 75 | 75 | 75 | 75 |
| Filter Shape | Lowpass | Lowpass | Lowpass | Lowpass |
| Passband Shape | Flat | Sinx/x | Flat | Sinx/x |
| Sampling Frequency | 13.50 MHz | 13.50 MHz | 6.75 MHz | 6.75 MHz |
| Insertion loss at 100 kHz | < 1.5 dB | < 4.5 dB | < 1.5 dB | < 3.0 dB |
| End of Passband | 5.5 MHz | 5.5 MHz | 2.2 MHz | 2.2 MHz |
| Amplitude ripple | < 0.2 dB | $< 0.3 \ dB^1$ | < 0.2 dB | $<0.3\;dB^2$ |
| Delay time at 200 kHz | 287 ns | 306 ns | 430 ns | 417 ns |
| Group delay ripple | < 15 ns | < 15 ns | < 30 ns | < 30 ns |
| Group delay equalised bandwidth | > 5.0 MHz | > 5.0 MHz | > 2.2 MHz | > 2.2 MHz |
| Attenuation at ¹ / ₂ S.F. | $12 \pm 2 \text{ dB}$ | $12 \pm 2 \text{ dB}$ | 12 ± 2 dB | $12 \pm 2 \text{ dB}$ |
| wrt loss at 100 kHz | | | | |
| Start of stopband | 8.00 MHz | 8.00 MHz | 4.20 MHz | 4.20 MHz |
| Stopband attenuation | > 40 dB | > 40 dB | 40 dB nominal | 40 dB nominal |
| Kp-rating - 2T sinesquared pulse | < 0.5% | < 0.5% | < 4% | < 4% |
| T=100 ns | | | | |
| Aqueous Washable | Yes | Yes | Yes | Yes |
| Package size | DR00008B | DR00008B | DR00005A | DR00008B |

¹Measured against sinx/x roll-off for a sampling frequency of 13.5 MHz.

²Measured against sinx/x roll-off for a sampling frequency of 6.75 MHz.

PACKAGE DETAIL



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