

# Anti-Aliasing and Reconstruction

## 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.

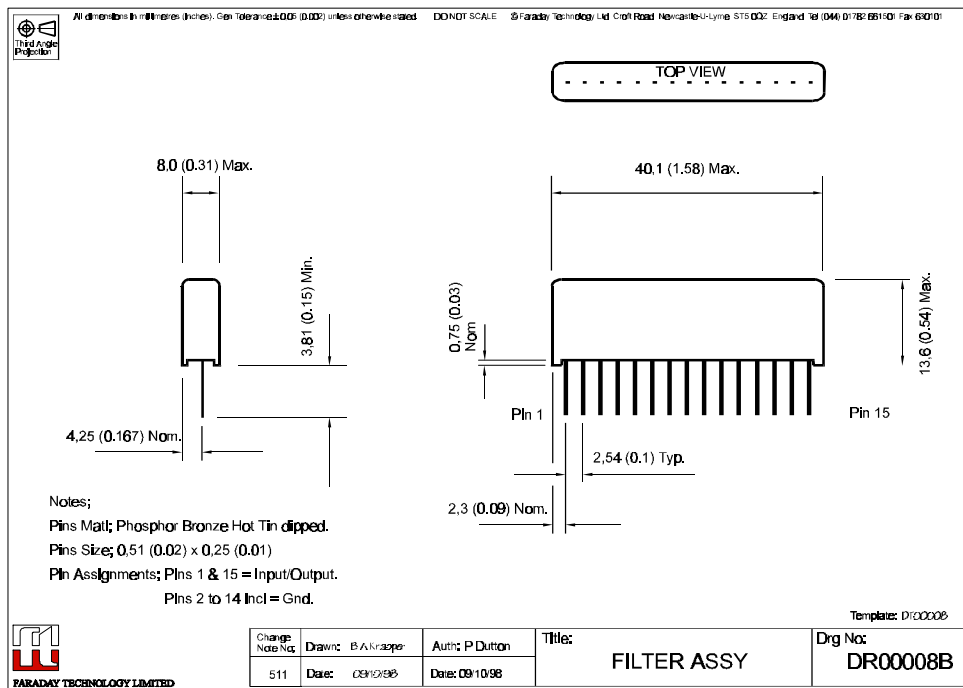
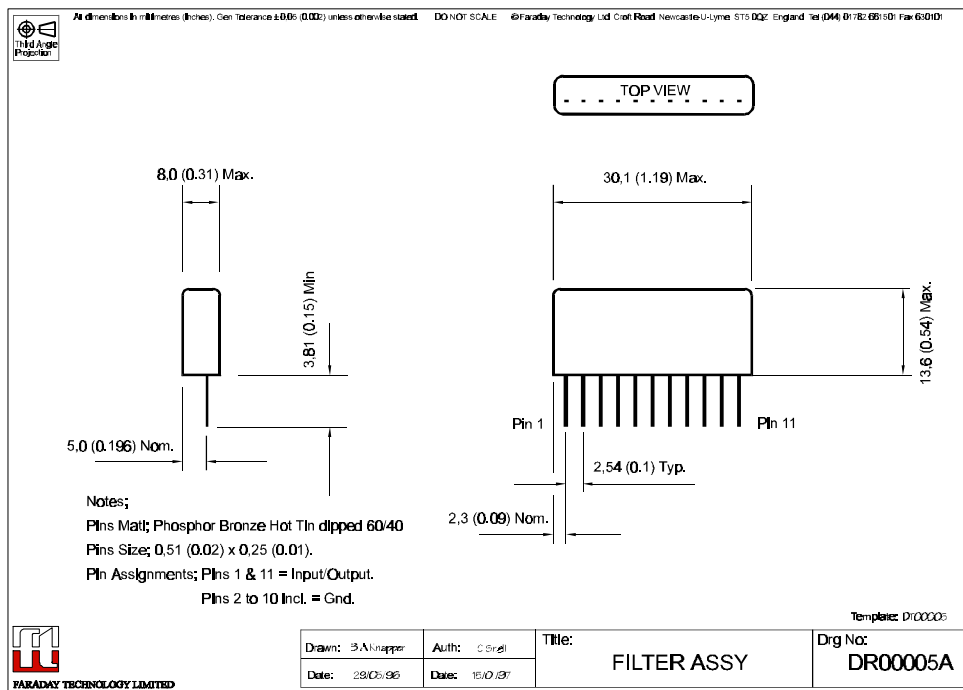
- Ideal for single pass or monitor outputs
- Choice of package format to suit requirement
- Small size
- Excellent pulse characteristics

| 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 <sup>1</sup> | < 0.2 dB      | < 0.3 dB <sup>2</sup> |
| 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 ± 2 dB | 12 ± 2 dB             | 12 ± 2 dB     | 12 ± 2 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              |

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

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

# PACKAGE DETAIL



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