# GFG SERIES ANTIALIASING FILTERS 

These very small, low cost, filters are intended for use with A-D and D-A video converters where some deviation from full multicodec standards is allowed. The cut off rate is slower than recommended to reduce time domain ringing.
The filters are designed for use in systems adhering to the EBU standard for 4:2:2 A-D and D-A conversion i.e. sampling rates of 13.5 MHz for the luminance ( Y ) channel and 6.75 MHz for the chrominance ( U and V ) channels. The pre-filters have a flat passband and the post-filters are shaped to provide $\sin x / x$ correction. Filters suitable for different sampling rates or with various losses at the half sampling frequency can be supplied.

|  | LUMA |  | CHROMA |  |
| :--- | :--- | :--- | :--- | :--- |
| Type Number | GFG1350F | GFG1350S | GFG0675F | GFG0675S |
|  |  |  |  |  |
| Filter Shape | Lowpass | Lowpass | Lowpass | Lowpass |
| Passband Shape | Flat | Sinx/x | Flat | Sinx/x |
| Sampling Frequency | 13.5 MHz | 13.5 MHz | 6.75 MHz | 6.75 MHz |
| Insertion Loss at 100 kHz | $<1.5 \mathrm{~dB}$ | $<4.5 \mathrm{~dB}$ | $<1.5 \mathrm{~dB}$ | $<2.5 \mathrm{~dB}$ |
| End Of Passband | 5.2 MHz | 5.2 MHz | 2.2 MHz | 2.2 MHz |
| Passband Amplitude Ripple | 0.1 dB max | 0.1 dB max | 0.1 dB max | 0.1 dB max |
| Loss at half S.F. | $12 \mathrm{~dB} \pm 2 \mathrm{~dB}$ | $12 \mathrm{~dB} \pm 2 \mathrm{~dB}$ | $12 \mathrm{~dB} \pm 2 \mathrm{~dB}$ | $12 \mathrm{~dB} \pm 2 \mathrm{~dB}$ |
| Start Of Stopband | 8.6 MHz | 8.6 MHz | 4.4 MHz | 4.4 MHz |
| Stopband Attenuation | 40 dB min | 40 dB min | 40 dB min | 40 dB min |
| Delay Time at 200 kHz | $200 \mathrm{~ns} \pm 5 \mathrm{~ns}$ | $230 \mathrm{~ns} \pm 5 \mathrm{~ns}$ | $430 \mathrm{~ns} \pm 5 \mathrm{~ns}$ | $435 \mathrm{~ns} \pm 5 \mathrm{~ns}$ |
| Pulse and bar: K - rating | $1 \%$ | $1 \%$ | $4 \%$ | $4 \%$ |
| Impedance | 75 ohms | 75 ohms | 75 ohms | 75 ohms |
| Temperature Range | $0^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ | $0^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ | $0^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ | $0^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ |
| Aqueous Washable | Yes | Yes | Yes | Yes |
| Package Type | DR $00008 B$ | DR00008B | DR 00226 A | DR 00008 B |

[^0]
## PACKAGE DETAIL



| Faraday Technology Ltd. | Tel: | $+44(0) 1782661501$ |
| :--- | :--- | ---: |
| Croft Road Industrial Estate, | Fax: | $+44(0) 1782630101$ |
| Newcastle, Staffordshire |  | Email: |


[^0]:    © Faraday Technology. As part of continual product improvement the specifications, details and dimensions shown in this publication are subject to change without notice

