

Video Oversampling Filters

SIL RANGE

Features

- Space saving SIL package
- Sinx/x Selectable or Flat versions
- Small size, low cost
- Luminance and Chrominance versions

This range of analogue filters has been designed for use in conjunction with a half band interpolating/decimating filter such as the TRW2242 or with the many encoder chips available which employ digital filtering combined with an output D to A converter. This type of digital filtering has good attenuation between the frequencies of $F_s/4$ and $3F_s/4$ where F_s is the Master Clock rate. When the normal clock rate of 27 MHz is used for the luminance channel the signal can be expected to have insignificant energy between 6.75 MHz and 20.25 MHz.

An analogue filter is required to attenuate the clock and sideband to reconstruct the signal. In order to preserve the integrity of the signal these filters have a good amplitude and group delay characteristics in the passband, similar to the requirements of CCIR601 but due to the above considerations do not need significant attenuation below 21 MHz.

Order code	FL676	FL714	FL677	FL715
Impedance	75 Ω	75 Ω	75 Ω	75 Ω
Sinx/x correction	No	Selectable	No	Selectable
Sampling Frequency	27.0 MHz	27.0 MHz	13.5 MHz	13.5 MHz
End of Passband	5.75 MHz	5.75 MHz	2.75 MHz	2.75 MHz
Amp. Ripple	Flat	< 0.1 dB	< 0.1 dB	< 0.1 dB
	Sinx/x ¹	< ± 0.2 dB	-	< ± 0.2 dB
G.D. ripple	Flat	< 6 ns	< 12 ns	< 12 ns
	Sinx/x	< 10 ns	-	< 20 ns
Start of stopband	21.5 MHz	21.5 MHz	10.75 MHz	10.75 MHz
Stopband atten. ²	>40 dB	> 40 dB	> 40 dB	> 40 dB
Delay time nom. ³	30 ns	27 ns	58 ns	50 ns
Aqueous Washable	Yes	Yes	Yes	Yes
Package	DR00034A	DR00064B	DR00034A	DR00064B

¹ Sinx/x amplitude ripple measured wrt 100 kHz

² Stopband attenuation measured wrt 100 kHz

³ Nominal delay time measured at 200 kHz

Other package sizes and styles are available

PACKAGE DETAIL

