

# VIDEO OVERSAMPLING SMD FILTERS

## OC SERIES

The OC series range of video oversampling SMD 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 and 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.

- Surface mount compatible
- Flat or Sinx/x versions
- Small size, low cost
- Luminance and Chrominance versions

With reduced analogue filter costs resulting from oversampling techniques, there is an increased need for manufacturing facilities to avoid the large production costs associated with the presently available through-hole packages. The Faraday OC range of oversampling filters can be used in surface mount assembly lines allowing vacuum pick up and reflow.

In order to preserve the integrity of the signal these filters have a good amplitude and group delay characteristics in the passband which meet requirements of CCIR601 but due to the above considerations do not have significant attenuation below 21 MHz.

<i>Order code</i>	OCYSA	OCYFA	OCCSA	OCCFA
<i>Impedance</i>	150 $\Omega$	150 $\Omega$	150 $\Omega$	150 $\Omega$
<i>Sinx/x correction</i>	Yes	No	Yes	No
<i>Sampling Freq.</i>	27.0 MHz	27.0 MHz	13.5 MHz	13.5 MHz
<i>End of Passband</i>	5.75 MHz	5.75 MHz	2.75 MHz	2.75 MHz
<i>Amp. ripple (dB)</i>	< 0.05 to 5.5 MHz < 0.1 to 5.75 MHz	< 0.05 to 5.5 MHz < 0.1 to 5.75 MHz	< 0.1 to 2.75 MHz	< 0.1 to 2.75 MHz
<i>G.D. ripple</i>	< 6 ns	< 6 ns	< 12 ns	< 12 ns
<i>Start of stopband</i>	21.5 MHz	21.5 MHz	10.75 MHz	10.75 MHz
<i>Stopband atten. wrt 100</i>	> 40 dB	>40 dB	> 40 dB	> 40 dB
<i>Delay time nom. at 200 kHz</i>	55 ns	58 ns	110 ns	116 ns
<i>Aqueous Washable</i>	Yes	Yes	Yes	Yes
<i>SMD Reflow Limitations</i>	refer to Data Sheet Fara309			

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# PACKAGE DETAIL

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