faraday
TECHNOLOGY

OA SERIES

VIDEO OVERSAMPLING SMD FILTERS

- Surface mount compatibility
- 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 OA range of oversampling filters can be used in surface mount assembly lines allowing vacuum pick up and reflow.

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 and an output D to A converter. This type of digital filtering has good attenuation between the frequencies of Fs/4 and 3Fs/4 where Fs 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.

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 have significant attenuation below 21 MHz.

Order code:	OAYSA	OAYFA	OACSA	OACFA
Impedance	75Ω	75Ω	75Ω	75Ω
Sinx/x correction	Yes	No	Yes	No
Sampling Freq.	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	< 0.25 dB	< 0.12 dB	< 0.30 dB	< 0.12 dB
G.D. ripple	< 10 ns	< 6 ns	< 20 ns	< 12 ns
Start of stopband	21.5 MHz	21.5 MHz	10.75 MHz	10.75 MHz
Stopband atten. wrt 100 kHz	> 40 dB	> 40 dB	> 40 dB	> 40 dB
Delay time nom. at 200 kHz	27 ns	30 ns	50 ns	58 ns
Package	DR00171A	DR00171A	DR00171A	DR00171A

PACKAGE DETAIL

All dimensions in millimetres (inches). Gen Tolerance ± 0.05 (0.002) unless otherwise stated.   DO NOT SCALE   © Faraday Technology Ltd Croft Road Newcastle-U-Lyme ST5 0QZ England Tel (044) 01782 661501 Fax 630101

10,16 (0.4) Nom.

7,62 (0.3) Nom.

1,59 (0.062) Nom.

8 7 6 5

10.16 (0.4) Nom.

1 2 3 4

2,54 (0.1) Typ

0,6 (0.024) Typ Footprint

9 (0.35) Max.

0,254 (0.01) Typ.

13,965 (0.55) ± 0.38 (0.015) Footprint

17,78 (0.7) ± 0.38 (0.015) Footprint

1,907 (0.075) Nom Footprint

0,381 (0.015)

Notes;
Pins Matl; Alloy 42 Lead Frame 90/10 Tin plated.
Pins Size; 0,254 (0.01) x 0,6 (0.024)
Pin Assignments; Pin 1 = Input
                  Pin 4 = Output
                  Pins 5, 6, 7 & 8 = Ground.

Template: DT0014O

Change Note No;	Drawn: B A Knapper	Auth: C Snell	Title:	Drg No:
	Date: 01/09/98	Date: 01/09/98	FILTER ASSY OUTLINE	DR00171A

FARADAY TECHNOLOGY LIMITED