

# HC SERIES HDTV FILTERS

## SMPTE 295M COMPLIANT

- SMPTE 295M compliant
- pin SIL package
- Miniature space saving package
- Aqueously washable
- Pre and Post Luminance and Chrominance filters
- Integer N<sup>o</sup> of clock delays between Luma and Chroma filters

Type Number	HC7425FPA	HC7425SPA	HC3712FPA	HC3712SPA
Impedance (ohms)	75	75	75	75
Filter Shape	Lowpass	Lowpass	Lowpass	Lowpass
Passband Shape	Flat	Sinx/x	Flat	Sinx/x
Sampling Frequency (S.F)	74.25 MHz	74.25 MHz	37.125 MHz	37.125 MHz
Insertion loss at 100 kHz	< 1.5 dB	< 4.5 dB	< 1.5 dB	< 4.5 dB
End of Passband	29.7 MHz	29.7 MHz	14.85 MHz	14.85 MHz
Amplitude ripple (dB) (wrt 100 kHz)	< ± 0.01 at 100 kHz < ± 0.12 at 28.2 MHz < 1.0 at 29.7 MHz	< ± 0.01 at 100 kHz < ± 0.12 at 28.2 MHz <sup>1</sup> < 1.0 at 29.7 MHz <sup>1</sup>	< ± 0.01 at 100 kHz < ± 0.12 at 14.1 MHz < 1.0 at 14.9 MHz	< ± 0.01 at 100 kHz < ± 0.12 at 14.1 MHz <sup>2</sup> < 1.0 at 14.9 MHz <sup>2</sup>
Insertion delay at 200 kHz	50 ns ± 2 ns	50 ns ± 2 ns	100 ns ± 3 ns	100 ns ± 3 ns
Group delay ripple (ns) (wrt 100 kHz)	< ± 0.5 at 20.0 MHz < ± 2.0 at 28.2 MHz < ± 19.5 to 30 MHz	< ± 0.5 at 20.0 MHz < ± 2.0 at 28.2 MHz < ± 19.5 to 30 MHz	< ± 1.0 at 14.5 MHz < ± 4.0 to 14.1 MHz < ± 39.0 to 15 MHz	< ± 1.0 at 14.5 MHz < ± 4.0 at 14.1 MHz < ± 39.0 to 15 MHz
Attenuation at 1/2 S.F. (wrt loss at 100 kHz)	> 6 dB	> 6 dB <sup>1</sup>	> 6 dB	> 6 dB <sup>2</sup>
> 20 dB Frequency (wrt loss at 100 kHz)	44.55 MHz	44.55 MHz	22.27 MHz	22.27 MHz
Start of stopband	46.78 MHz	46.78 MHz	23.76 MHz	23.76 MHz
Stopband attenuation (wrt loss at end of passband)	> 40 dB	> 40 dB	> 40 dB	> 40 dB

Part numbering		HC	Package Drg No
Sampling Frequency	SF - 7425 SF - 3712		A - DR00005A D - DR00170A F - DR00069B G - DR00172A
Passband Shape	S - Sin/x F - Flat		Realisation P - Passive

Example part number HC7425SPA is a passive, luminance sinx/x corrected for a s.f. of 74.25 MHz packaged in a 11 pin SIL package as DR00005A. Other sampling frequencies are available on request.

<sup>1</sup> Measured against sinx/x roll off for a sampling frequency of 74.25 MHz

<sup>2</sup> Measured against sinx/x roll off for a sampling frequency of 37.125 MHz

# PACKAGE DETAIL

