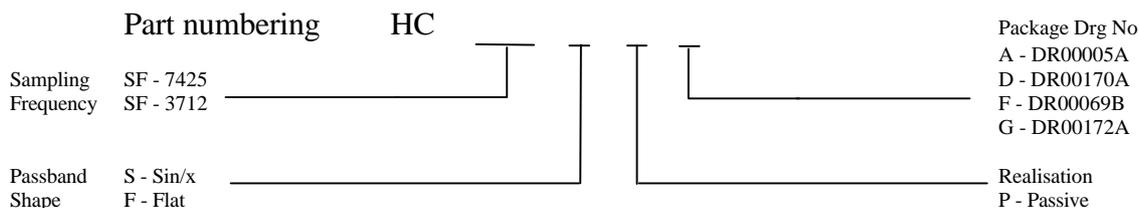


# HC SERIES HDTV FILTERS

## SMPTE 295M COMPLIANT

- SMPTE 295M compliant
- 11 pin SIL package available
- Aqueously washable versions available
- Pre and Post Luminance and Chrominance 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)<br>(wrt 100 kHz)                | < ± 0.01 at 100 kHz<br>< ± 0.12 at 28.2 MHz<br>< 1.0 at 29.7 MHz | < ± 0.01 at 100 kHz<br>< ± 0.12 at 28.2 MHz <sup>1</sup><br>< 1.0 at 29.7 MHz <sup>1</sup> | < ± 0.01 at 100 kHz<br>< ± 0.12 at 14.1 MHz<br>< 1.0 at 14.85 MHz | < ± 0.01 at 100 kHz<br>< ± 0.12 at 14.1 MHz <sup>2</sup><br>< 1.0 at 14.85 MHz <sup>2</sup> |
| Insertion delay at 200 kHz                            | 54 ns ± 2 ns   | 53 ns ± 2 ns   | 98 ns ± 4 ns  | 107 ns ± 4 ns   |
| Group delay ripple (ns)<br>(wrt 100 kHz)              | < ± 0.5 at 100 kHz<br>< ± 2.0 at 28.2 MHz<br>< ± 19.5 to 30 MHz  | < ± 0.5 at 100 kHz<br>< ± 2.0 at 28.2 MHz<br>< ± 19.5 to 30 MHz                            | < ± 1.0 at 100 kHz<br>< ± 4.0 to 14.1 MHz<br>< ± 39.0 to 15 MHz   | < ± 1.0 at 100 kHz<br>< ± 4.0 at 14.1 MHz<br>< ± 39.0 to 15 MHz                             |
| Attenuation at $1/2$ S.F.<br>(wrt loss at 100 kHz)    | > 6 dB   | > 6 dB <sup>1</sup>  | > 6 dB  | > 6 dB <sup>2</sup>   |
| > 20 dB Frequency<br>(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<br>(wrt loss at end of passband) | > 40 dB  | > 40 dB  | > 40 dB   | > 40 dB   |



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

