

VERSION: 1.1

# High-Speed DF Antenna Commutating Switch 

$1-6000 \mathrm{MHz}$

## Product Code: DF-A0239

## SPECIFICATIONS:

| Electrical: DF chain |  |
| :---: | :---: |
| Frequency range | $1-6000 \mathrm{MHz}$ |
| Input VSWR | <2.5:1 |
| Maximum input level | 30 dBm CW, <br> 45 dBm at $1 \%$ duty factor in $1 \mu \mathrm{~s}$ pulse |
| Input connectors | SMA female |
| Output connectors | SMA female |
|  |  |
| Power and control: |  |
| Power supply | 19-36V DC, 1 A |
| Control interface | EIA-485 (RS-485), hardwired lines |
| Commutation time | $<10 \mu \mathrm{~S}$ |
| Mechanical: |  |
| Dimensions | $317 \mathrm{~mm} \times 170 \mathrm{~mm} \times 40 \mathrm{~mm}$ |
| Total mass | $<1.5 \mathrm{~kg}$ |
| External material | Aluminium |
| Environmental: designed to meet the following specifications |  |
| Temperature range | $-40{ }^{\circ} \mathrm{C}$ to $+70{ }^{-} \mathrm{C}$ |
| Vibration | $0.02 \mathrm{~g}^{2} / \mathrm{Hz}, 2-300 \mathrm{~Hz}$ |
| Shock | 40 G for 10 ms |
| Thermal shock | $-20{ }^{\circ} \mathrm{C}$ to $+70{ }^{\circ} \mathrm{C}$ |
| Water ingress rating | IP54 |

## PRODUCT DESCRIPTION:

The DF-A0239 is a high-speed 6- to 3-channel commutating switch intended for switched elements direction finding applications. The switch works in combination with a band switch* and can accommodate up to 4 bands, each with 6 antenna elements, and routes any 3 elements of a selected band of 6 elements to any of the 3 outputs. The switch is designed to be mounted internally within the weatherproof cavity of the DF-A0029, DF-A0037 and DF-A0095 direction finding antennas, as well as the DF-A0057 outdoor enclosures designed for use with the DF-A0001, DF-A0007, DF-A0038, DF-A0062 and DF-A0136.

The switch accepts a very wide input voltage range and is controlled via hardwired logic lines or an EIA-485 (RS-485) interface. The commutation table can be programmed via the RS-485 interface. Commutation is triggered via an external strobe line. All switching is solid state for rapid commutation and unlimited switching cycles.

## PRODUCT FEATURES:

- 6- to 3-channel commutating switch
- High-speed solid state switching


## APPLICATIONS:

- DF band switching for Alaris' range of DF antennas, particularly, the DF-A0029, DF-A0037 and DF-A0095


## *Note: Band switch is sold separately

