

# ▶ HYBRID MODULES

## Custom devices

TEMEX COMPONENTS designs, qualifies and manufactures hybrid devices for Aerospace applications according to the requirement of ESA-PSS 608:

- *CIL: Circulator-Isolator-Limiter specially designed for E/R module for active antennas,*

Characteristics	Conditions	Min.	Typ.	Max.
Frequency range		3 GHz		3.3 GHz
Bandwidth			2 %	
VSWR	Pin = 20 dBm		1.2	
Insertion loss:	Pin = 20 dBm			
from 1 to 2			0.35 dB	0.4 dB
from 2 to 3			1.1 dB	1.2 dB
Isolation:				
from 2 to 1				18
from 3 to 2				36
from 1 to 3				18
from 3 to 1				15
Flat leakage	Pin = 10 W (40 μs/10 %)			20 mW
Recovery time				500 ns
1 dB compr. input power	From 2 to 3			+ 7 dBm
Spike leakage	During 5 ns half point power			10 nJ

- *Amplifiers: in S and L Band, surface mount (in SMM2 package) and TO package,*

Please consult your Local Sales office for further information.

- *VCO's: in S and L Band, surface mount (in SMM2 package) and TO package.*

Please consult [page 2b-1](#) of this documentation.

## Features

These devices can be proposed in accordance with MIL specifications for all Hi-Rel applications.

Components list and material list can be provided upon request.

Assembly are performed in 10000 clean room. Certified people are dedicated to Hi-Rel products.

This film technology has been aerospace qualified for ASAR program (ESA requirements).