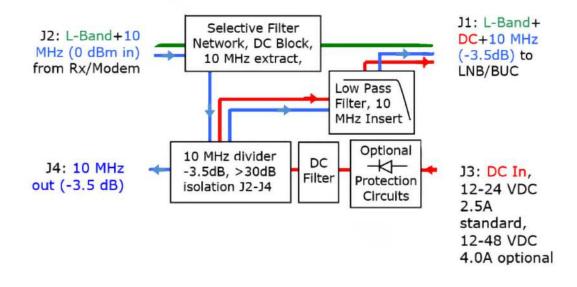


# Orbital 10 MHz Reference Extractor Thru Tee



The Orbital 10 MHz Reference Extractor Thru Tee (RET-25/40) is a unique bias tee thruplexer (thru tee) that does more than pass L-band and 10 MHz and insert external DC: it extracts the 10 MHz reference signal from the modem. The demultiplexed signal can be used for monitoring purposes or as the timing reference for additional devices – such as a redundant LNB or BUC. This RF component can help SATCOM system integrators and 4G and 5G cellular network operators reduce costs, simplify designs and eliminate multiple clock sources.

- Filters L-band and 10 MHz, inserts DC
- Extracts 10 MHz reference signal
- Choice of connector type and mounting options
- High return loss and low thru loss performance
- Only 3.5 dB of signal loss for demultiplexed signal



## MODEL NUMBER: RET25/40



| ELECTRICAL                                  |                              |
|---------------------------------------------|------------------------------|
| L Band                                      |                              |
| Bandpass                                    | 10 MHz & 900 to 2100 MHz     |
| Thru Loss                                   | 1.0 dB maximum               |
| Ripple                                      | ±0.5 dB maximum              |
| Input VSWR                                  | 1.5 : 1 maximum              |
| Output VSWR                                 | 1.5 : 1 maximum              |
| 10 MHz                                      |                              |
| Both coupled & pass through are 3.5 dB down |                              |
| DC                                          |                              |
| Filtering                                   | Hash filter, low pass filter |
| Resistance                                  | 0.132 ohms (average)         |

### MECHANICAL

| Measurements     | Tolerance ±.005 in.                                                     |
|------------------|-------------------------------------------------------------------------|
| Size (case)      | 3.425l x 2.55w x 0.88h in.                                              |
| Size (with conn) | 3.425l x 3.8w x 0.88h in.                                               |
| Weight           | 5 oz                                                                    |
| Paint / Colour   | Blue anodized finish                                                    |
| Mounting holes   | 3/8" (5mm)<br>Accepts standard<br>rackmounting screws<br>10/32 or 10/34 |

# POWER SPECIFICATIONSInput DC VoltagePassive device<br/>No power requiredPower Capacity12 to 24 VDC - 2.5A<br/>12 to 48 VDC - 4.0A highSWITCHING POWER SUPPLY(not included with DC Thru Diplexer)See:PS1 brochure for N. America<br/>PS2 brochure for GlobalCONNECTORS AVAILABLEVoltage

| J1, J2: L-Band ports | S - SMA 50Ω<br>F - F, 75Ω<br>N - N, 50Ω                             |
|----------------------|---------------------------------------------------------------------|
| J3: DC Supply        | B - BNC (preferred)<br>S - SMA<br>N - N<br>T - TNC<br>ft - feedthru |
| J4: 10 MHz           | S - SMA (preferred)<br>B - BNC<br>N - N                             |

## HOW TO ORDER

MODULE: RET - Reference Extractor Thru Tee J1: TO LNB, BDC,or BUC J2: TO RECEIVER or MODEM J3: TO DC SUPPLY RET 40 - N N B S J4: 10 MHz OUT - 3 dB DOWN POWER OPTION: 25 - STANDARD 12-24 VDC & 2.5 A 40 - HIGH POWER 12-48 VDC & 4.0 A

# For more information to order, please contact us at sales@orbitalresearch.net

**RoHS & REACH Compliant** 

## ENVIRONMENTAL

**Operating Temp** 

**Relative Humidity** 

-40 to +60° Celsius Up to 100% condensation and frost