# CERNEXWAVE

# Transceiver Sub-assemblies and Modules

## FEATURES:

- ❖ Frequency coverage: 18 to 110 GHz
- ❖ Custom designed
- ❖ High performance

## APPLICATIONS:

- ❖ Communication systems
- ❖ Radio systems
- ❖ Radar systems



**CTR Series**

## DESCRIPTION:

**Cernexwave's CTR** series transceiver sub-assemblies and modules are offered in the frequency range of 18 to 110 GHz. Due to the nature of the system application, most transceiver sub-assemblies and modules are custom specified. Based on Cernex's extensive in-house passive and active component design and manufacturing capacities, various transceiver sub-assemblies and modules can be produced and delivered to meet the customer's specifications. Common frequency band focuses are K, Ka, Q, V, E and W bands.

## SPECIFICATIONS:

| Parameters | Specifications | Technical Remarks |
|---|---|---|
| Frequency Range | 18 to 110 GHz | Other frequency ranges are available upon request |
| Noise Figure Range, RX | 2.0 to 6.0 dB | Frequency band dependent. Specify when ordering |
| Output P-1 dB Range, TX | 20 to 40 dBm | Other P-1 dB is available. Specify when ordering |
| Linear Gain Range, TX & RX | 20 to 60 dB | Other gain ranges are available. Specify when ordering |
| Gain Flatness | ±1.0 to ±3.0dB | Specify when ordering |
| Gain Control | 30 dB | This is a typical value. Specify when ordering |
| Local Oscillator Type | Free running or PLO | System dependent |
| Local Oscillator Frequency Range | 9.0 to 110 GHz | Depends on up-converter type |
| Local Oscillator Power Range | 0 to 16 dBm | Depends on up-converter type |
| Local Oscillator Rejection | 20 to 40 dB | Other rejections are available. Specify when ordering |
| IF Input, TX | I/Q | QPSK or higher available |
| Harmonics rejection | -60dBc | This is a typical value. Specify when ordering |
| Spurious | -60dBc | This is a typical value. Specify when ordering |
| Port Return Loss | 10 dB | This is a typical value. Specify when ordering |
| Temperature performance | Such as $\Delta G/\Delta T$; $\Delta NF/\Delta T$; $\Delta P\text{-}1/\Delta T$ | Gain and P1-dB versus temperature. Specify when ordering |
| Power Supply | Various | Specify when ordering |
| Connector Type | Various | Specify when ordering |
| Mechanical Dimensions | Various | Specify when ordering |
| Environmental | Various | Specify when ordering |