



FULL-DUPLEX FREQUENCY TRANSCEIVER TCKU2W, 10.95-11.70 GHZ RX / 13.75-14.50 GHZ TX, KU-BAND, 0-66 DB GAIN



TCKu2W full-duplex Ku-band transceiver with 10.95-11.70 GHz Rx, 13.75-14.50 GHz Tx, 2 W P1dB, 0-66 dB adjustable gain, 950-1700 MHz IF, IP65 housing, and external 25 MHz reference.

Parameter	Value
INPUT / OUTPUT PARAMETERS	
Rx Input Frequency Range	10.95-11.70 GHz
Tx Output Frequency Range	13.75-14.50 GHz
IF Frequency Range	950-1700 MHz
Signal Polarization (Tx/Rx)	Linear, orthogonal
LOCAL OSCILLATOR	
Tx LO Frequency	12.8 GHz
Rx LO Frequency	10.0 GHz
LO Phase Noise @ 1 kHz	-93 dBc/Hz
LO Phase Noise @ 10 kHz	-104 dBc/Hz
LO Phase Noise @ 100 kHz	-107 dBc/Hz

LO Phase Noise @ 1 MHz	-121 dBc/Hz
Reference Frequency	25 MHz
Reference Stability	< 0.5 ppm
RF PERFORMANCE	
Noise Figure	≤ 3 dB
Image Rejection	> 60 dB
Spurious Emissions	< -50 dBc
Input & Output Port Return Loss	< -10 dB
Rx VSWR	≤ 2.0
Tx VSWR	≤ 1.8
Antenna Gain, Rx	≥ 18 dB
Antenna Gain, Tx	≥ 18 dB
Output Power at P1dB, min.	2 W (33 dBm)
Conversion Gain	0-66 dB, adjustable
Gain Flatness, 250 MHz RTBW	< 5 dB
OPERATING MODES	
Standby Mode	Receive only
Communication Session	Full duplex
Operating Time in Standby Mode	Unlimited
Communication Session Without Additional Radiator / Air Cooling	5 minutes

Communication Session With Additional Radiator / Air Cooling	Determined experimentally depending on cooling level to avoid overheating
POWER SUPPLY AND ENVIRONMENT	
Input Voltage	12 VDC
Power Consumption	20 W max.
Operating Temperature Range	-40 °C to +60 °C
Housing Protection	IP65
INTERFACES	
RF Tx OUT	SMA-type female, 50 Ohm
RF Rx IN	SMA-type female, 50 Ohm
IF Tx IN	U.FL-type female, 50 Ohm
IF Rx OUT	U.FL-type female, 50 Ohm

Taking into consideration that we (ROKS PrJSC) are developer and system integrator, also do not stop on our technical growth and improvement, know that the view of all our devices and equipment including their technical parameters may be different from pictures presented on website and parameters listed on each device webpage.

Note! All details the customer has to confirm in advance during ordering and before payment. Those parameters that were not specified and / or were not agreed while ordering will be implemented as basic at the discretion of the manufacturer. Each of our customers has a 1.5 year warranty and 7 year aftersales support for the whole range of our products.