



**Applications:**

- Telecommunication
- Radar
- Instrumentations
- Scientific Researches

**Features:**

- Custom Design
- Various Packages
- In 8 Waveguide Bands

**Descriptions:**

**3J Microwave, Inc.** offers custom designed transceivers, receivers & transmitters for the applications of instrumentations, radar, telecommunications and scientific researches. The custom transceiver modules are designed in two different package styles: compact package and assembly-on-a-plate. The compact package is used to accommodate the entire transceiver subsystem in a single optimized package with light weigh and minimized size. The compact-packaged transceiver modules are excellent choices in the mobile, airborne and



satellite applications. In the assembly-on-a-plate packages the standard catalog products are utilized and assembled together on a base plate. Transmitters, Receivers or transceivers with the assembly-on-a-plate packages are good for the applications of the ground systems, lab use and instrumentations etc. The receivers, transmitters and transceivers can be configured in the various functions to fit in various applications. For example: Front-End for radar, communications, Radiometer, interferometer and FMCW Sensors.

**RX Receiver Specifications\***

<b>Model Number**</b>	RX-xxxxxxxx-00							
<b>WG Band</b>	WR-42	WR-34	WR-28	WR-22	WR-19	WR15	WR-12	WR-10
<b>RF Frequency Range (GHz)</b>	18 to 26.5	22 to 33	26.5 to 40	33 to 50	40 to 60	50 to 75	60 to 90	75 to 110
<b>RF Bandwidth (GHz)</b>	0.01 GHz to Full Waveguide Band							
<b>Receiver Gain (dB)</b>	10 to 50							
<b>Receiver NF (dB)</b>	2.0	2.5	3.0	4.0	5.0	5.5	6.0	6.5
<b>Harmonics (dBc)</b>	≤ -30							
<b>Spurious (dBc)</b>	< -70							
<b>DC Power Supply (V/mA)</b>	+12/	+12/	+12/	+12/	+12/	+12/	+12/	+12/
<b>RF Connectors</b>	UG595/U Or Coax	UG595/U or Coax	UG599/U or coax	UG383/U or coax	UG383/U Or coax	UG385/U	UG385/U	UD387/UM
<b>Outline</b>								

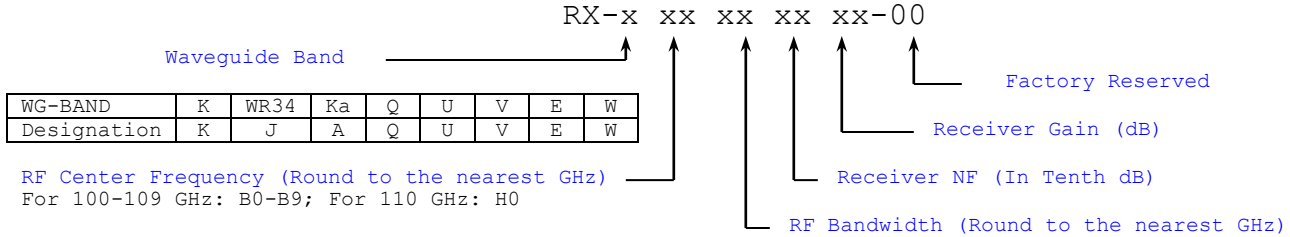
\* Please consult the factory for more technical details  
 \*\* Please see "how to order" for the model number details



# Section 9-1: Transceiver Subsystems

[www.3jmicrowave.com](http://www.3jmicrowave.com) Frequency Coverage: 18 to 110 GHz

## How to Order:



## RX Model Number Example:

A V-Band Receiver with the following specifications:  
 Center Frequency: 60 GHz  
 Bandwidth: +/- 2 GHz  
 Receiver Noise Figure: 5.5  
 Receiver Gain: 30 dB

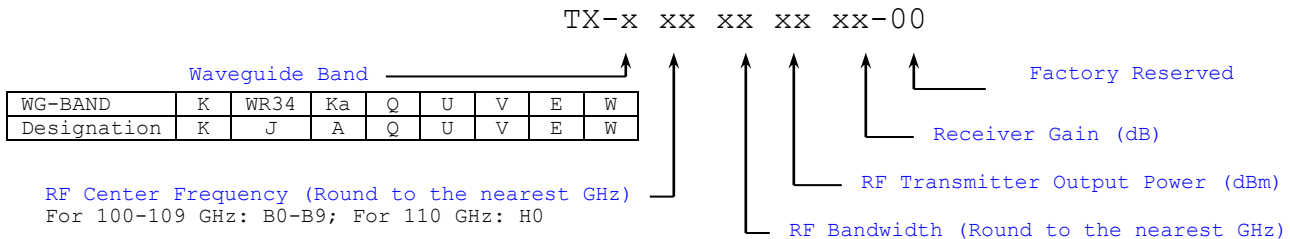
Module Number: RX-V60045530-00

## TX Transmitter Specifications\*

Model Number**	TX-xxxxxxxx-00							
WG Band	WR-42	WR-34	WR-28	WR-22	WR-19	WR15	WR-12	WR-10
RF Frequency Range (GHz)	18 to 26.5	22 to 33	26.5 to 40	33 to 50	40 to 60	50 to 75	60 to 90	75 to 110
RF Bandwidth (GHz)	0.01 GHz to Full Waveguide Band							
Transmitter Output Power (dBm)	10 to 40			10 to 35		10 to 27	10 to 27	0 to 30
Up conversion Gain (dB)	10 to 50							
Harmonics (dBc)	≤ -30							
Spurious (dBc)	< -70							
DC Power Supply (V/mA)	+12/	+12/	+12/	+12/	+12/	+12/	+12/	+12/
RF Connectors	UG595/U Or Coax	UG595/U or Coax	UG599/U or coax	UG383/U or coax	UG383/U Or coax	UG385/U	UG385/U	UD387/UM
Outline								

\* Please consult the factory for more technical details  
 \*\* Please see "how to order" for the model number details

## How to Order:





# Section 9-1: Transceiver Subsystems

[www.3jmicrowave.com](http://www.3jmicrowave.com)      Frequency Coverage: 18 to 110 GHz

**TX Model No. Example:**

A Ka-Band Transmitter with the following specifications:  
 Center Frequency: 34.5 GHz  
 Bandwidth: +/- 1 GHz  
 Transmitter Output Power: +37 dBm  
 Up conversion Gain: 35 dB

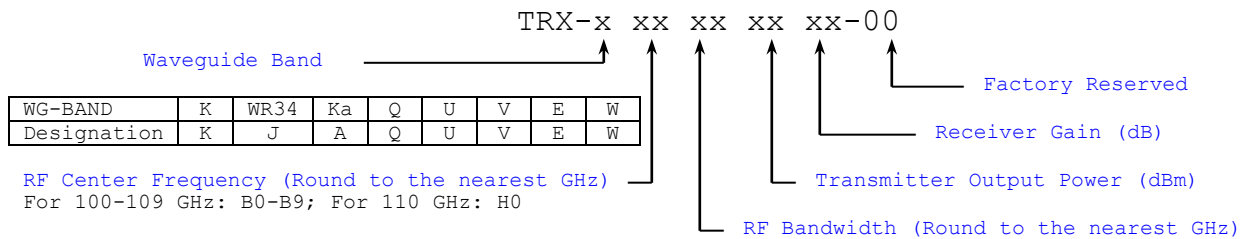
Module Number: TX-28-35023735-xx

**TRX Transceiver Specifications\***

Model Number**	TRX-xxxxxxxx-00							
WG Band	WR-42	WR-34	WR-28	WR-22	WR-19	WR15	WR-12	WR-10
RF Frequency Range (GHz)	18 to 26.5	22 to 33	26.5 to 40	33 to 50	40 to 60	50 to 75	60 to 90	75 to 110
RF Bandwidth (GHz)	0.01 GHz to Full Waveguide Band							
Transmitter Output Power (dBm)	10 to 40			10 to 35		10 to 27	10 to 27	0 to 30
Receiver Gain (dB)	10 to 50							
Receiver NF (dB)	2.0	2.5	3.0	4.0	5.0	5.5	6.0	6.5
Harmonics (dBc)	≤ -30							
Spurious (dBc)	< -70							
DC Power Supply (V/mA)	+12/	+12/	+12/	+12/	+12/	+12/	+12/	+12/
RF Connectors	UG595/U Or Coax	UG595/U or Coax	UG599/U or coax	UG383/U or coax	UG383/U Or coax	UG385/U	UG385/U	UD387/UM
Outline								

\* Please consult the factory for more technical details  
 \*\* Please see "how to order" for the model number details

**How to Order:**



**TRX Model No. Example:**

A W-Band Transceiver with the following specifications:  
 Center Frequency: 94 GHz  
 Bandwidth: +/- 2 GHz  
 Transmitter Output Power: +30 dBm  
 Receiver Gain: 45 dB

Module Number: TRX-W94043045-00

**Outlines:**

Please consult the factory for the Details