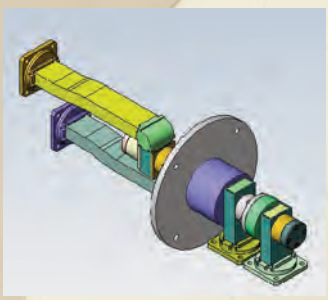
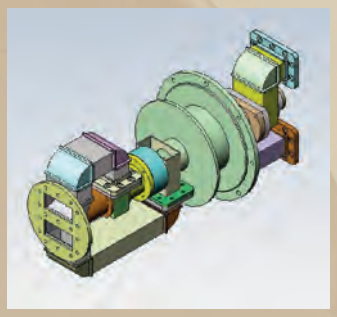
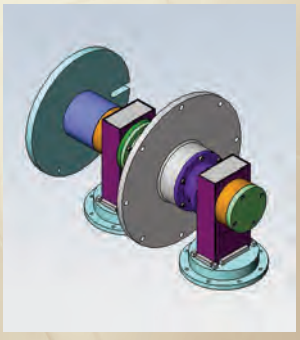
ROTARY JOINTS

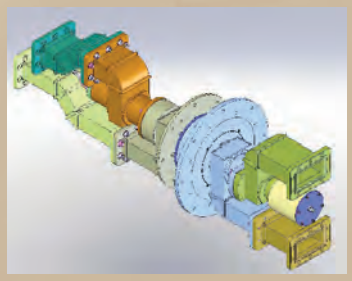
Weather Radar

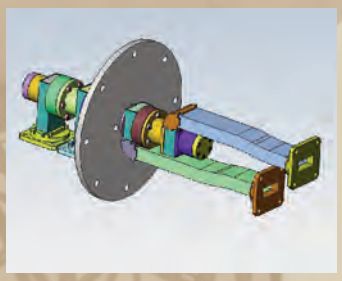
Field-proven
Worldwide
Reliability!











DIAMOND

'Since 1956'

Since 1956, Diamond Antenna and Microwave Corporation has been your independent company for making weather radar rotary joints – from early simple reflectivity weather radars to today's high-power dual polarization Doppler radars with integrated fiber optic channels. With this long heritage of rotary joint designs to build from, count on Diamond to provide your quality weather radar rotary joints.

The rotary joints shown in this catalog are representative of the many different styles of weather radar rotary joints Diamond has made over the years. If you don't see what you want in this catalog – let us know; we may already have it designed or we will modify a design to meet your requirements. In many cases the specifications in the catalog may be changed to include wider bandwidth, a shift of frequencies, higher power handling, better VSWR or lower loss. Please ask if you don't see exactly what you need.

For a detailed outline drawing of a specific model number, or to request a quotation, please contact your local sales representative (see our website http://www.diamondantenna.com/sales_reps.htm) or send an email to sales@diamondantenna.com.

DIAMOND

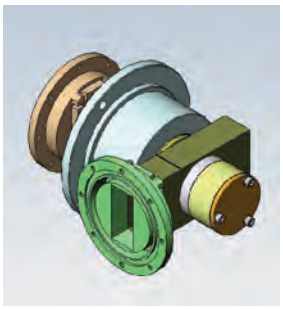
WEATHER RADAR ROTARY JOINTS

Model 45-546-0

C-Band - 1 Channel

Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
1**	1	5.4	5.8	0.15	0.05	1.15:1	0.05	350 KW	600 W	WR-187	L

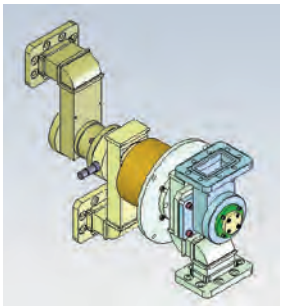
***With encoder provisions*



Model 46-546-0

C-Band - 1 Channel

Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
1	1	5.4	5.8	0.15	0.05	1.15:1	0.05	350 KW	1000 W	WR-187	L



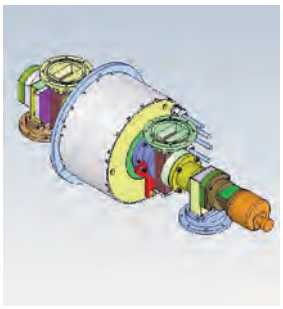
Model 22115-0

C-Band - 2 Channels

Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
2	1	5.5	5.7	0.15	*	1.15:1	0.03	500 KW	500 W	WR-187	L
	2	5.5	5.7	0.3	*	1.25:1	0.03	500 KW	500 W	WR-187	L

** Contact Diamond Antenna*

WEATHER RADAR ROTARY JOINTS

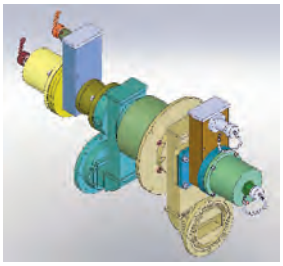


Model 22120-0

C-Band - 2 Channels

Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
2**	1	5.4	5.8	0.25	0.05	1.15:1	0.1	350 KW	600 W	WR-187	U
	2	5.4	5.8	0.4	0.05	1.3:1	0.1	175 KW	300 W	WR-187	U

***With slip ring and encoder provisions*



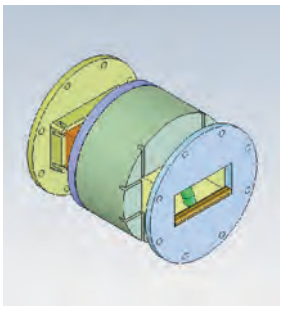
Model 23102-0

C-Band - 3 Channels

Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
3	1	5.4	5.7	0.2	*	1.2:1	0.02	1000 KW	1000 W	WR-187	I
	2	5.4	5.7	0.4	*	1.5:1	0.03	0.25 KW	6 W	N (F)	I
	3	5.4	5.7	0.7	*	1.3:1	0.05	0.25 KW	65 W	N (F)	I

** Contact Diamond Antenna*

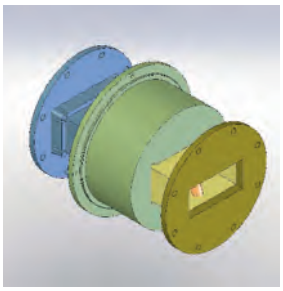
WEATHER RADAR ROTARY JOINTS



Model 31-445-0

S-Band - 1 Channel

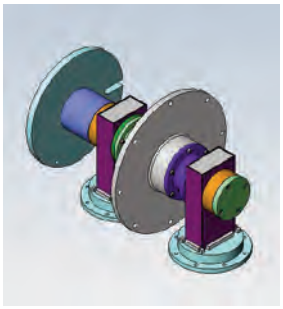
Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
1	1	3.1	3.5	0.15	*	1.15:1	*	2000 KW	5000 W	WR-284	I



Model 32-445-0

S-Band - 1 Channel

Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
1	1	2.7	2.9	0.15	0.05	1.2:1	0.05	1500 KW	1500 W	WR-284	I



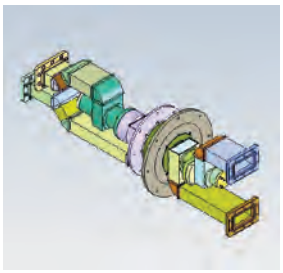
Model 37-446-0

S-Band - 1 Channel

Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
1	1	2.7	3	0.15	*	1.2:1	0.08	1100 KW	2200 W	WR-284	U

** Contact Diamond Antenna*

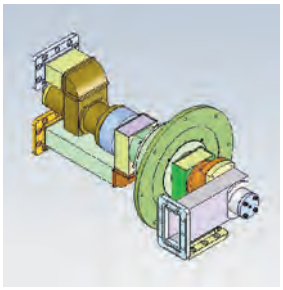
WEATHER RADAR ROTARY JOINTS



Model 2281-0

S-Band - 2 Channels

Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
2	1	2.7	2.9	0.3	0.1	1.2:1	0.05	1000 KW	1000 W	WR-284	I
	2	2.7	2.9	0.3	0.05	1.2:1	0.05	1000 KW	1000 W	WR-284	I

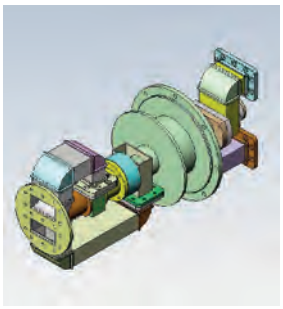


Model 20-2281-0

S-Band - 2 Channels

Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
2	1	2.7	2.9	0.3	0.1	1.2:1	0.05	1000 KW	1000 W	WR-284	I
	2	2.7	2.9	0.3	0.05	1.2:1	0.05	1000 KW	1000 W	WR-284	I

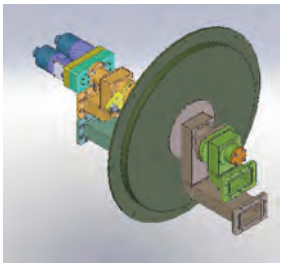
WEATHER RADAR ROTARY JOINTS



Model 30-2281-0

S-Band - 2 Channels

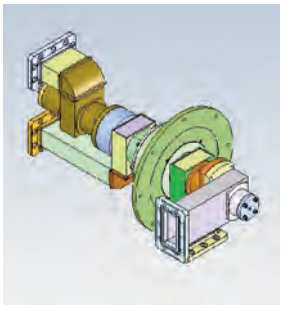
Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
2	1	2.7	3	0.1	0.05	1.2:1	0.02	1100 KW	2200 W	WR-284	I
	2	2.7	3	0.2	0.05	1.2:1	0.02	1000 KW	1000 W	WR-284	I



Model 32-2281-0

S-Band - 2 Channels

Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
2	1	2.7	2.9	0.3	0.1	1.2:1	0.05	1500 KW	1550 W	WR-284	I
	2	2.7	2.9	0.25	0.05	1.2:1	0.05	1500 KW	1550 W	WR-284	I

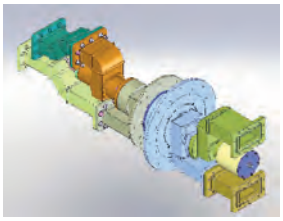


Model 33-2281-0

S-Band - 2 Channels

Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
2	1	2.7	3	0.3	0.1	1.2:1	0.05	1500 KW	1200 W	WR-284	L
	2	2.7	3	0.25	0.05	1.2:1	0.05	1500 KW	2000 W	WR-284	L

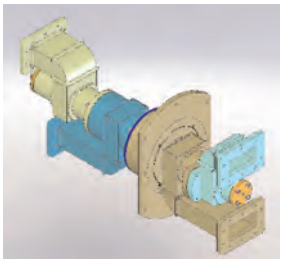
WEATHER RADAR ROTARY JOINTS



Model 34-2281-0

S-Band - 3 Channels

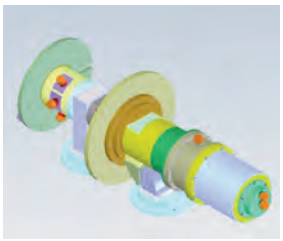
Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
3	1	2.7	2.9	0.3	0.1	1.2:1	0.05	1000	1000	WR-284	I
	2	2.7	2.9	0.3	0.05	1.2:1	0.05	1000	1000	WR-284	I
	3	1310 nm window	1550 nm window							Single Mode fiber optic ST connector	I



Model 36-2281-0

S-Band - 2 Channels

Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
2	1	2.7	2.9	0.3	0.1	1.2:1	0.05	1500 KW	1500 W	WR-284	I
	2	2.7	2.9	0.25	0.05	1.2:1	0.05	1500 KW	1500 W	WR-284	I



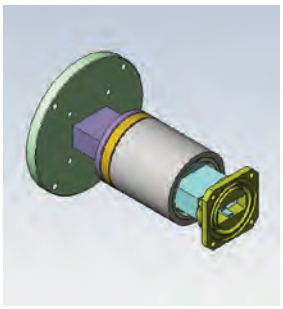
Model 10-2412-0

S-Band - 4 Channels

Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
4	1	2.7	3	0.2	*	1.2:1	0.08	1100 KW	1000 W	WR-284	L
	2	2.7	3	0.8	*	1.2:1	0.05	*	10 W	N (F)	U
	3	0.057	0.058	0.5	*	1.3:1	0.05	*	0.1 W	N (F)	L
	4	0.057	0.058	0.5	*	1.3:1	0.05	*	0.1 W	N (F)	L

** Contact Diamond Antenna*

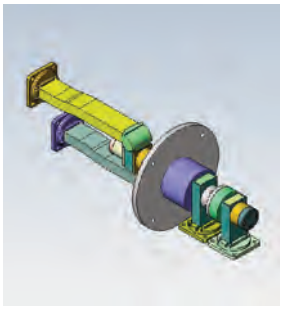
WEATHER RADAR ROTARY JOINTS



Model 48-845-0

X-Band - 1 Channel

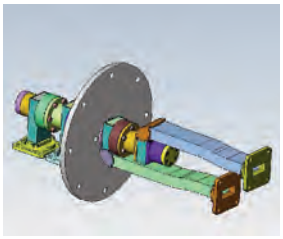
Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
1	1	9.275	9.475	0.25	*	1.15:1	0.02	250 KW	250 W	WR-90	I



Model 13-2354-0

X-Band - 2 Channels

Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
2	1	9.35	9.5	0.2	0.05	1.2:1	0.05	600 KW	500 W	WR-90	L
	2	9.35	9.5	0.35	0.05	1.3:1	0.05	100 KW	250 W	WR-90	L



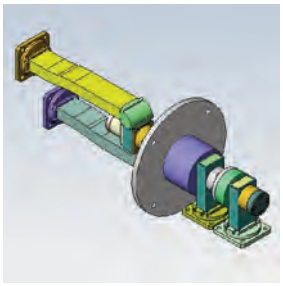
Model 14-2354-0

X-Band - 2 Channels

Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
2	1	9.35	9.5	0.2	0.05	1.2:1	0.05	600 KW	500 W	WR-90	L
	2	9.35	9.5	0.35	0.05	1.3:1	0.05	100 KW	250 W	WR-90	L

** Contact Diamond Antenna*

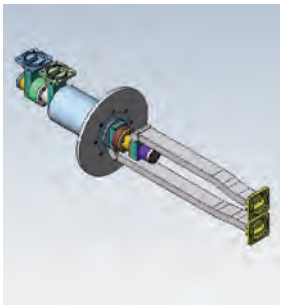
WEATHER RADAR ROTARY JOINTS



Model 15-2354-0

X-Band - 2 Channels

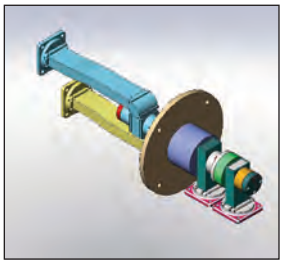
Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
2	1	9.2	9.7	0.25	0.05	1.3:1	0.05	600 KW	500 W	WR-90	L
	2	9.2	9.7	0.5	0.05	1.4:1	0.05	100 KW	250 W	WR-90	L



Model 16-2354-0

X-Band - 2 Channels

Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
2	1	9.3	9.5	0.5	0.05	1.2:1	0.05	350 KW	500 W	WR-90	L
	2	9.3	9.5	0.6	0.05	1.3:1	0.05	150 KW	250 W	WR-90	L



Model 17-2354-0

X-Band - 2 Channels

Number of Channels	CH #	Frequency Low (GHz)	Frequency High (GHz)	Insertion Loss (dB)	IL WOW (dB)	VSWR (ratio)	VSWR WOW	Peak Power	Average Power	Input	Style
2	1	9.275	9.475	0.2	0.05	1.2:1	0.05	250 KW	250 W	WR-90	L
	2	9.275	9.475	0.35	0.05	1.3:1	0.05	150 KW	150 W	WR-90	L


Weather Radar
Field-proven
Worldwide
Reliability!

'Since 1956'

DIAMOND ANTENNA & MICROWAVE CORPORATION
59 Porter Road • Littleton, MA 01460 USA
Tel: +1.978.486.0039 • Fax: +1.978.486.0079
sales@diamondantenna.com
www.diamondantenna.com

1.2011