

UNCLASSIFIED

DATASHEET

Product Features

- 2700 TO 3100 MHz Frequency
- 4 Megawatts max power
- Insertion loss: < 0.30dB
- Phase Balance: ± 3 degrees
- Amplitude Balance: ±0.25 dB
- Isolation: >19 dB
- High Power Handling Capability



Figure 1 3dB Wave Guide Combiner

Applications

- Communications Systems
- Defense Applications
- Power Combining
- Amplifier Systems
- Amplifier Power Combining
- Wireless Infrastructures

Description

2731-3WGC-A is a passive 4 WAY WR284 WAVEGUIDE 90°, 3dB HYBRID HIGH POWER COMBINER operating from Freq. 2700 MHz to 3100 MHz with maximum power at 4 MW. The 2731-3WGC-A has greater than 19 dB Typical isolation, less than 0.3dB Insertion loss and a max VSWR of 1.20:1, along with a phase balance of +/- 3 degrees and an amplitude balance of +/- 0.25dB.

This RF combiner operates in a temperature range from -55° to 85°, with a footprint 206 x 355.3 x 76.2 mm.

Electrical Specifications

Design: Passive
 Number of Input Ports: 4

Description	Minimum	Typical	Maximum	Units
Frequency Range	2.7		3.1	GHz
Impedance		50		Ohms
Output VSWR			1.20:1	
Insertion Loss			0.3	dB
Isolation	19			dB
Amplitude Balance		±0.25		dB
Phase Balance		±3		Degrees
Power Handling (CW)			4	MW

**See Electrical Notes

Electrical Specification Notes:
 The device is intended for 90° signal combining.

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

Mechanical Specifications

Size

- Length 355.3mm [14 in]
- Width 76.2mm [3.00 in]
- Height 206mm [8.11 in]
- Weight 3.5 kg [7.72 lb]
- Material Aluminum 6082
- Surface Finish Silver-plating
- External Paint RAL 9005 Black Mate
- Configuration 4 Ports

Environmental Specifications

Temperature

Operating Range

-55 to 85 ° C

Typical Performance Data for All Ports

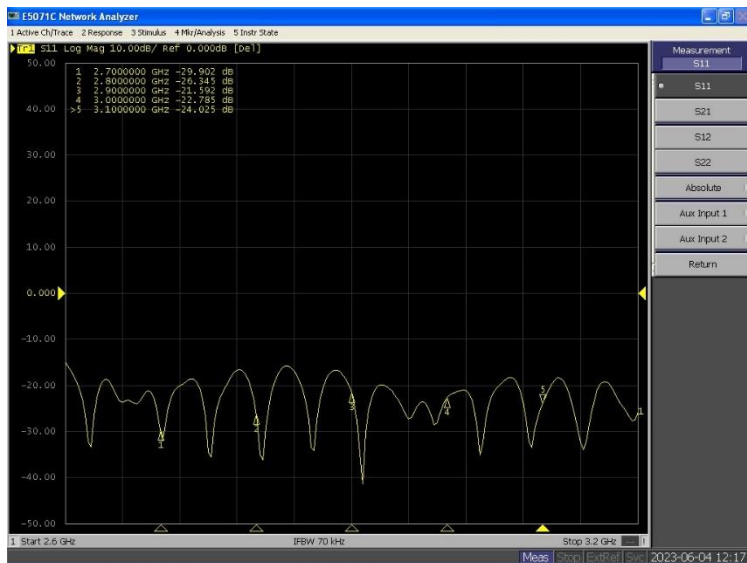


Figure 2 Return Loss

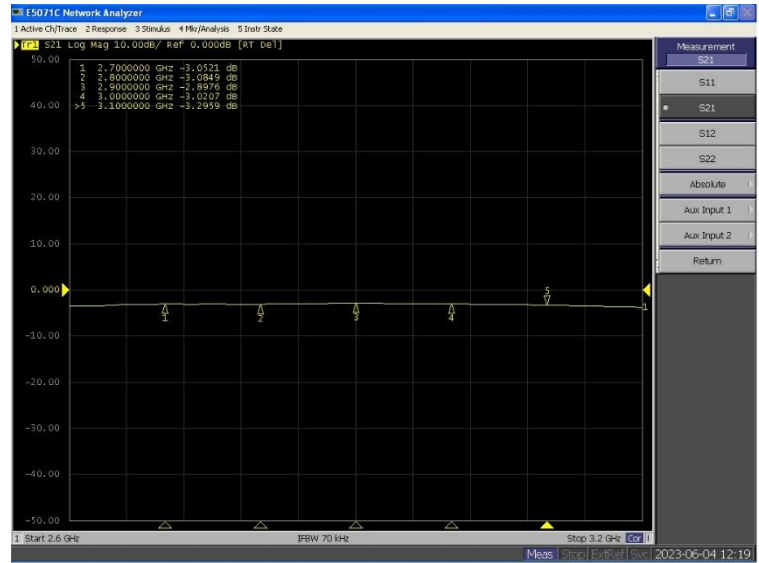


Figure 3 Insertion Loss

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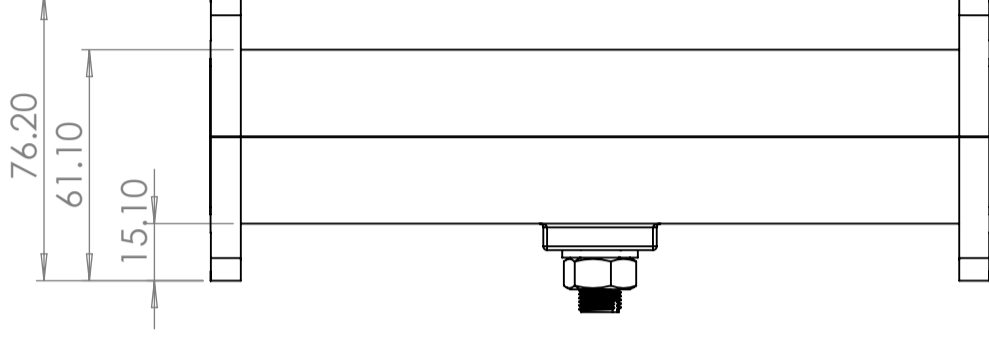
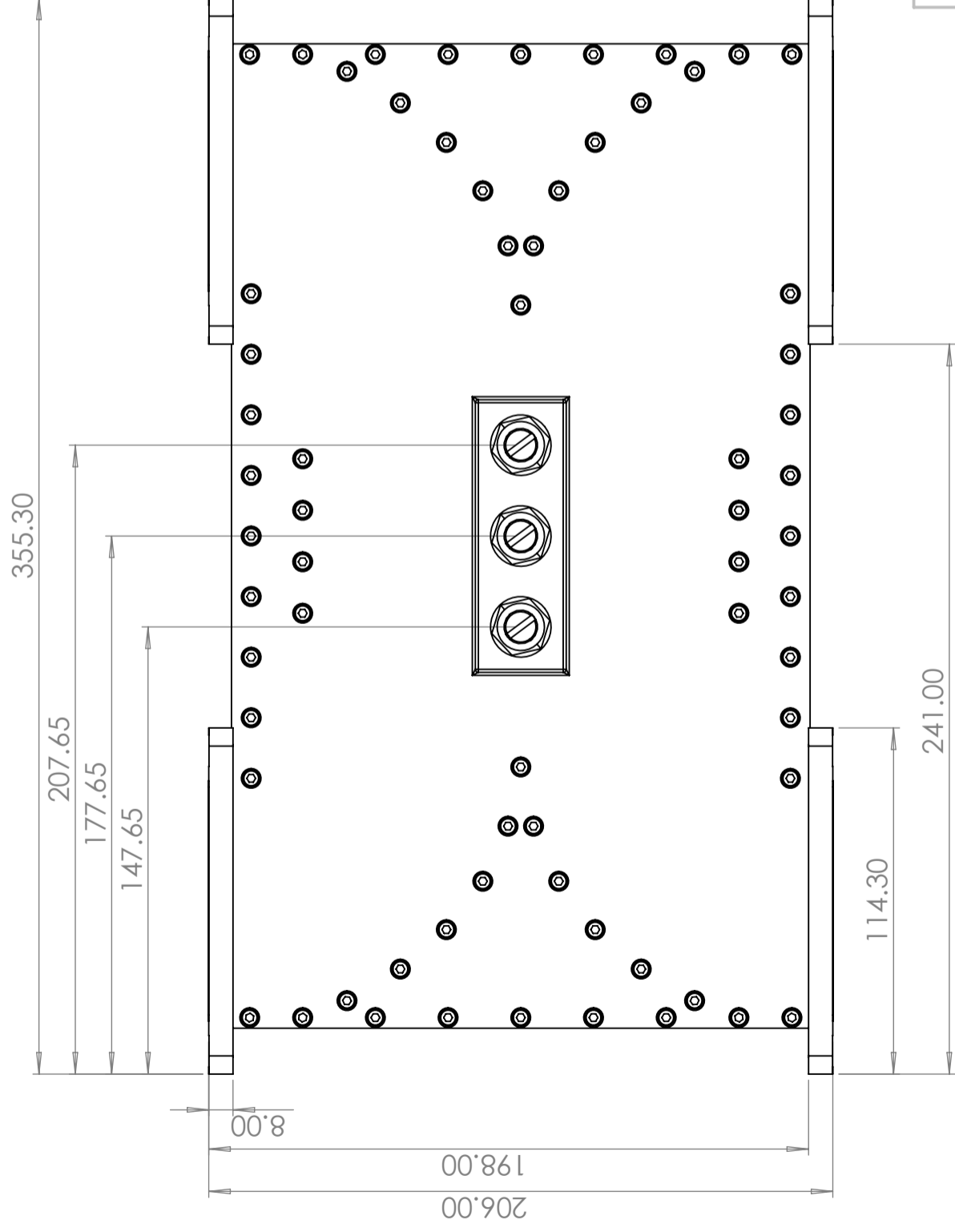
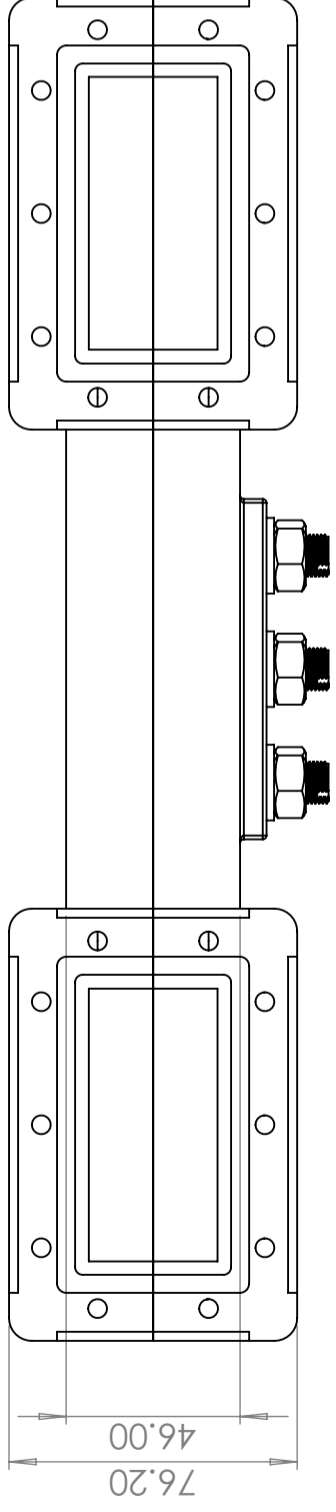
Contact Information

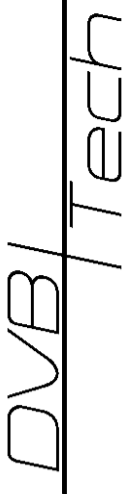

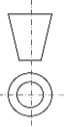
DVB-TECH S.R.L.
Via Dante Alighieri 3/B/C
20029 Turbigo
Milan, ITALY

Phone: **+39 0331 929819**
Fax: **+39 0331 929819**
E-mail: **sales@dvb-tech.com**
Web: **www.dvb-tech.com**



REVISIONS		
REV.	DESCRIPTION	DATE
00	Initial Release	01-06-23
		APPROVED MoinM



		3dB Wave Guide Combiner	
© Copyright DVB-TECH S.R.L. - All Rights Reserved	TITLE:	PART NO. DVB-2731-3WGC	DWG NO. Q1003
DEBURR AND BREAK SHARP EDGES UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS X ± 0.50 XX ± 0.10 .XXX ± 0.05  ± 0.5	THIRD ANGLE PROJECTION 	DO NOT SCALE DRAWING	REVISION 00 SHEET 1 OF 1
DRAWN MOINM CHKD Karens APPVD ArthurM	DATE 10-04-23 01-06-23 01-06-23	FINISH: Silver-Plating	MATERIAL: Aluminium 6082
SIZE A3	SCALE 1:2	FINISH: Silver-Plating	MATERIAL: Aluminium 6082