

IBF ELECTRONIC GMBH & CO. KG

Company Profile



IBF Electronic offers a complete line of industrial microwave components and products. Specialised in custom designs, for both the industrial and the plasma application market. For all industrial ISM frequencies, like 2.45 GHz, 5.8 GHz and 915 (896/922) MHz. Special design for waveguides applicators, special microwave generators for both heating and plasma are IBF Electronics power. Controlled manually or by various interfaces, or industrial bus controlled systems. We are specialized in pulsed power generators. We have more than 30 years of experience in these developments of microwave components, applicators and plasma systems.

Next to our extensive standard program our strength is in the development of new and custom devices and generators.

Generators with power levels from 100watt up to 120kW.

Almost all generators or microwave components and plasma systems are available in component sets, for easy construction at OEM systems.

Our flexibility and design experience is known world-wide.

Of course, also magnetrons and electron tubes are available as well as spares for all types of generators .

We are the competent partner for research institutes and universities, in the development and manufacturing of special or standard systems.

Please contact us for additional information or specifications.



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Version: June 2020

MICROWAVE DETECTOR

STANDARD 915 MHz/2.45 GHz

IDM211N/BNC

Features:

- Microwave coaxial detector with N- and BNC-connector
- Zero-bias Schottky diode
- For 915 MHz and 2.45 GHz industrial applications



Specifications:

Frequency range	915 MHz $\pm$ 10 MHz	2.45 GHz $\pm$ 0.1 GHz
Output voltage ($P_{IN} = 1$ mW, $R_{LOAD} = 33$ k Ω)	190 mV typ	220 mV typ
Frequency response variation	$\pm$ 0.25 dB max	$\pm$ 0.5 dB max
Statistical spread of output voltage	$\pm$ 1 dB (3- σ deviation)	
Output voltage temperature variation (5 - 65 °C)	< 3 dB	
Output voltage polarity	Negative	
Maximum input working power	10 mW	
Maximum input power (destruction limit)	100 mW	
VSWR	1.3 typ, 2 max	
Video resistance	8 k Ω typ	
RF input connector	N-M	
DC output connector	BNC-F	
Dimensions in mm (L x W x H)	58 x 26 x 26	



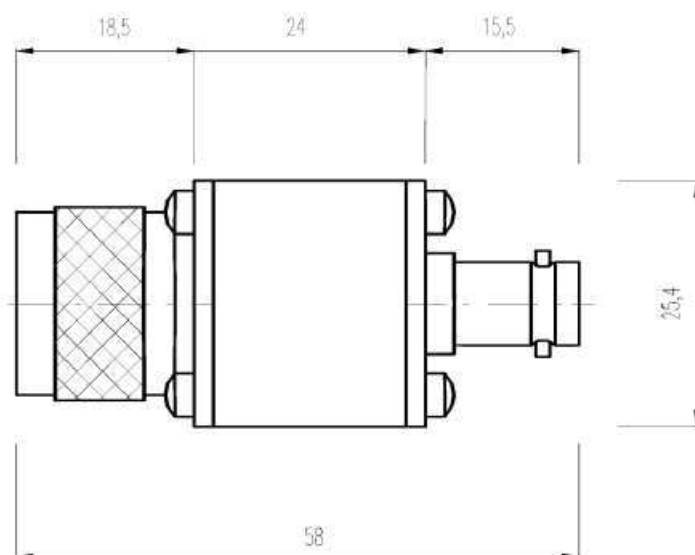
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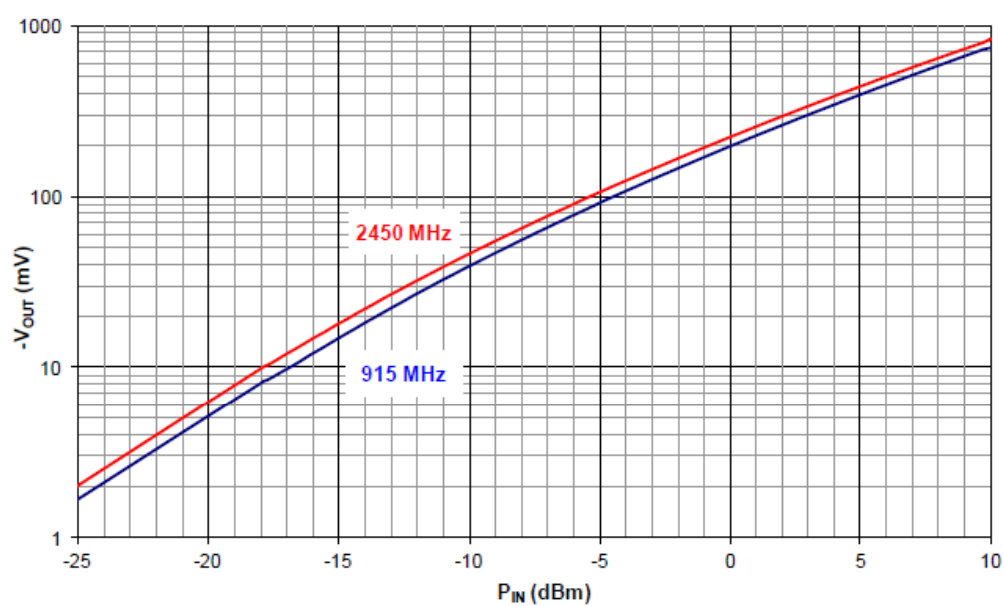


Dimensional Drawings (in mm):



Performance Chart:

Typical transfer characteristic ($f = 915 \text{ MHz}$ and 2450 MHz , $R_{\text{LOAD}} = 33 \text{ k}\Omega$, $T_A = 25 \text{ }^\circ\text{C}$)



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3 - STUB - TUNER

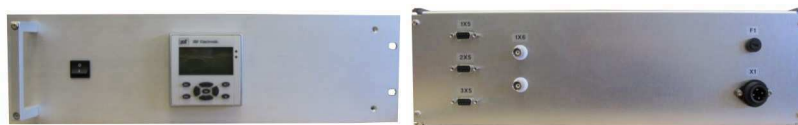
WR975AUTOTUN3A

Features:

- With automatic function
- Controlling through LCD-display and keyboard



Tuner



Control unit

Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Frequency	910 MHz $\pm$ 10 MHz
Power level	$\leq$ 100 kW
Waveguide	WR975/R9/WG4
Flange	UDR9
Length (L x W x H)	446 x 337 x 473 mm
Weight	23.4 kg (Tuner) 5.6 kg (Control unit)
Cooling	Air-cooled
VSWR	$\leq$ 10



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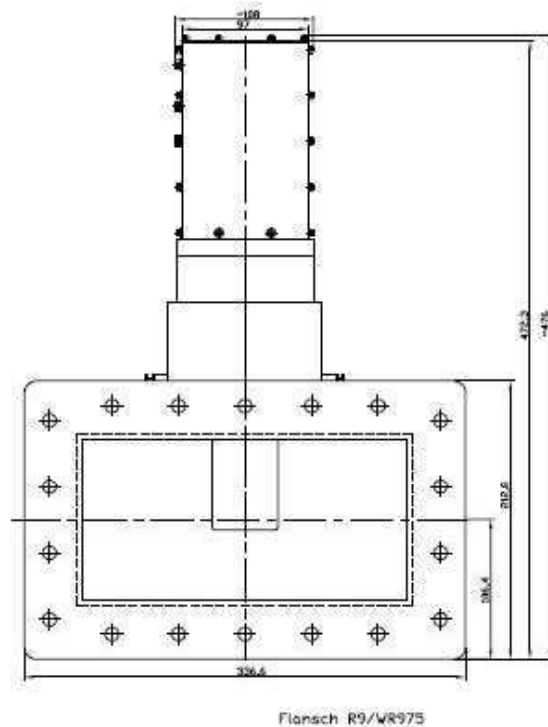
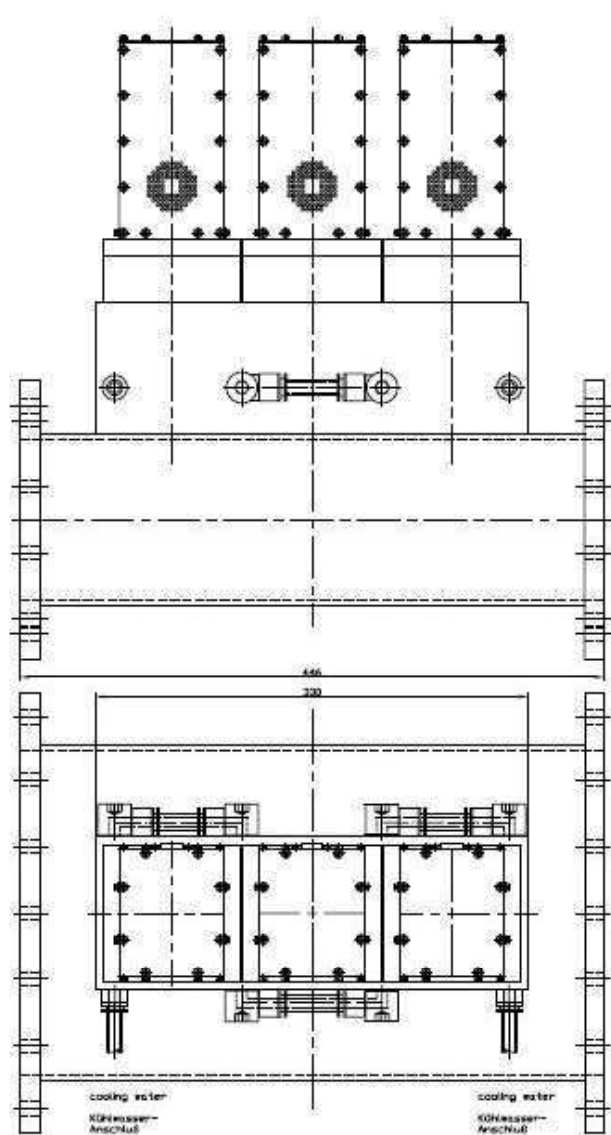
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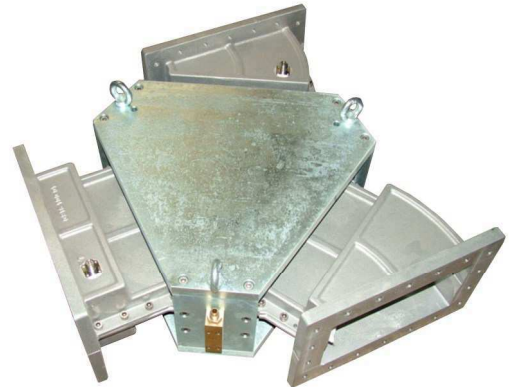
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CIRCULATOR 75 KW STANDARD

WR975CIRCULATOR075SA

Features:

- 75 kW forward or reflected power
- Light weight (Aluminum waveguide)



Specifications:

Frequency	915 MHz $\pm$ 10 MHz
Isolation	$\geq$ 23 dB
Insertion loss	$\leq$ 0.15 dB
Return loss	$\geq$ 23 dB
Power (forward or reflected)	75 kW cw
Monitor coupling	-60 dB $\pm$ 2 dB
Water temperature	+20 °C ... +35 °C
Storage temperature	+15 °C ... +40 °C
Waveguide	WR975/R9/WG4
Flange	UDR9
Water connection	37 ° JIC
Material	Aluminum alloy



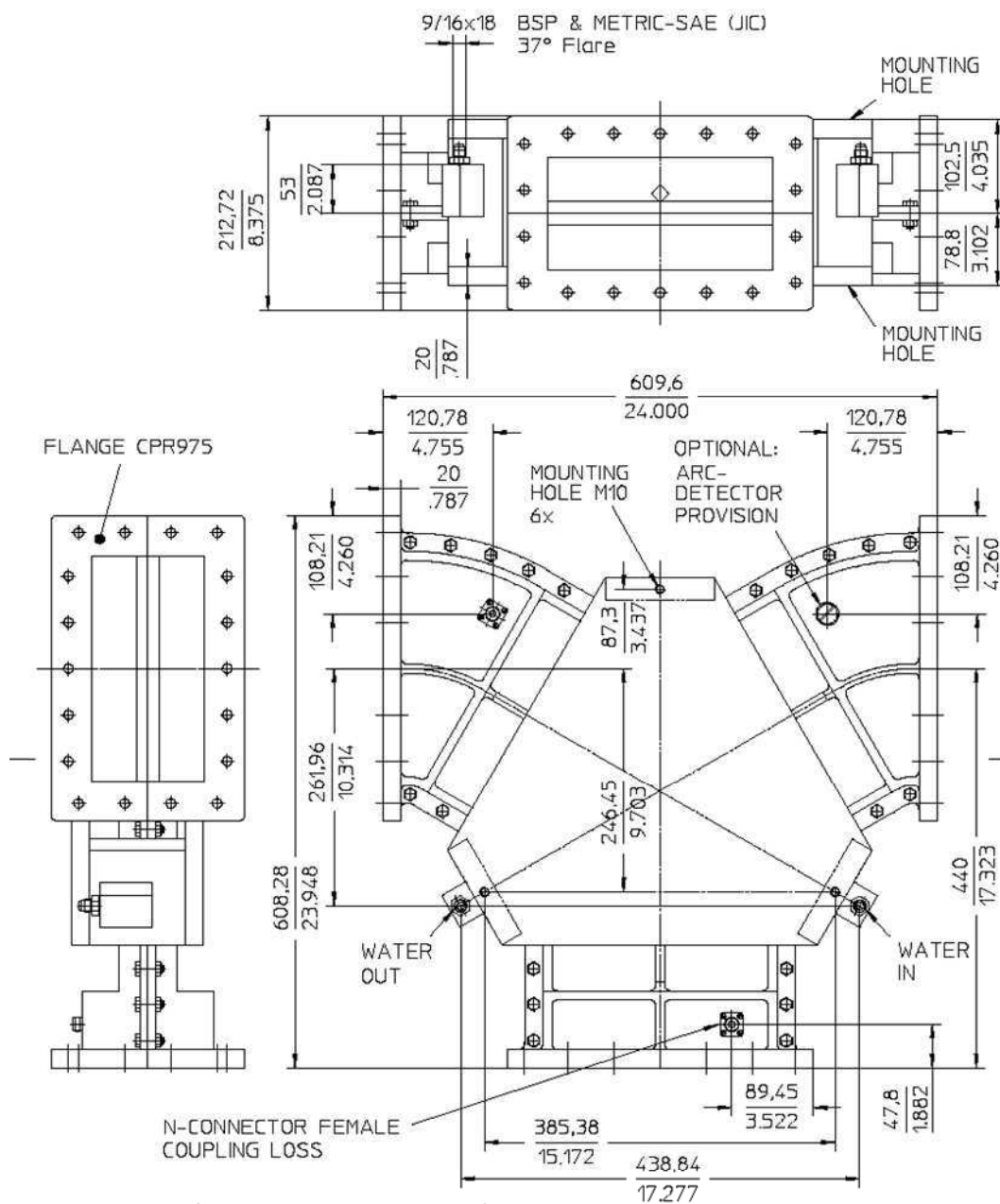
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DUAL - DIRECTIONAL - COUPLER

WR975DDC60NA/SA

Features:

- Output connector available with N-type and SMA-type
- Light weight (Aluminum waveguide)

Specifications:

Material	Aluminum with silver-coloured Chromate conversion coating
Weight	6.9 kg
Waveguide	WR975/R9/WG4
Flange	UDR9
Output connector	N-type or SMA-type
Frequency	915 MHz $\pm$ 15 MHz
Directivity	$\geq$ 25 dB
Power level	$\leq$ 100 kW
VSWR (N, SMA)	$\leq$ 1.25
Coupling factor	-60 dB $\pm$ 0.5 dB standard
Termination	50 Ohm



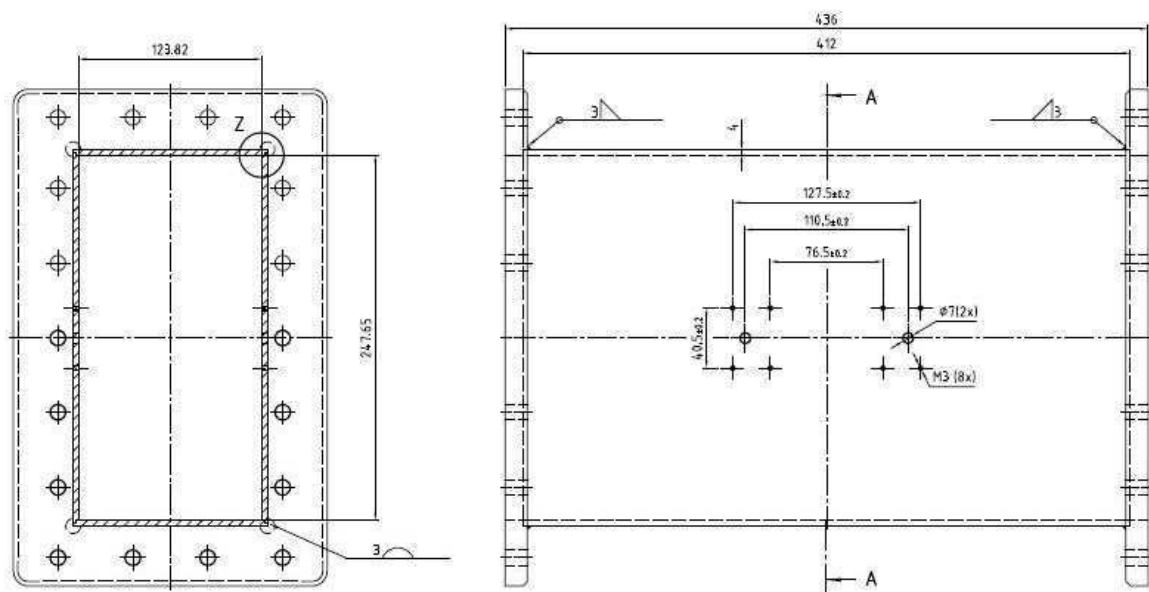
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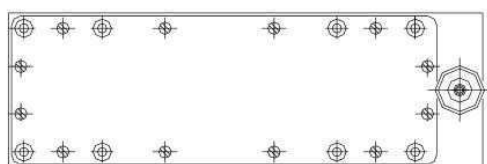
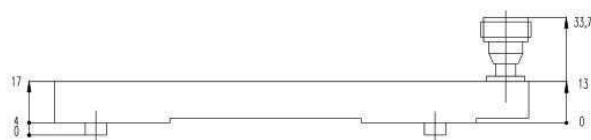
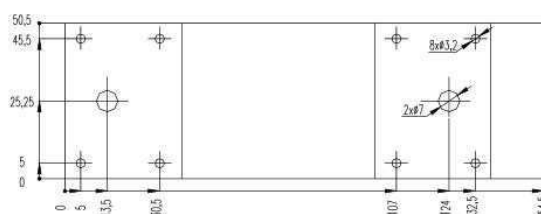
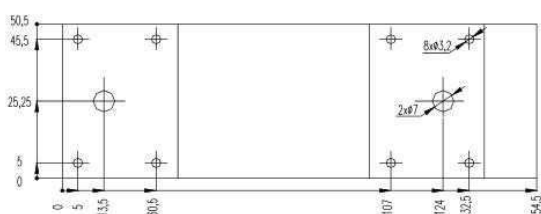
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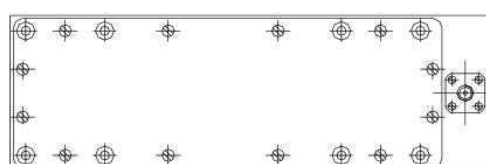
Dimensional Drawings (in mm):



Drilling template



N-type connector



SMA-type connector



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E - BEND 90° WR975/R9/WG4

WR975EB90R242LA

Features:

- Welded finish
- Light weight (Aluminum waveguide)



Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Weight	6 kg
Frequency	915 MHz $\pm$ 10 MHz
Power level	$\leq$ 200 kW
VSWR	$\leq$ 1.05
Flange	UDR9
Radius	242 mm



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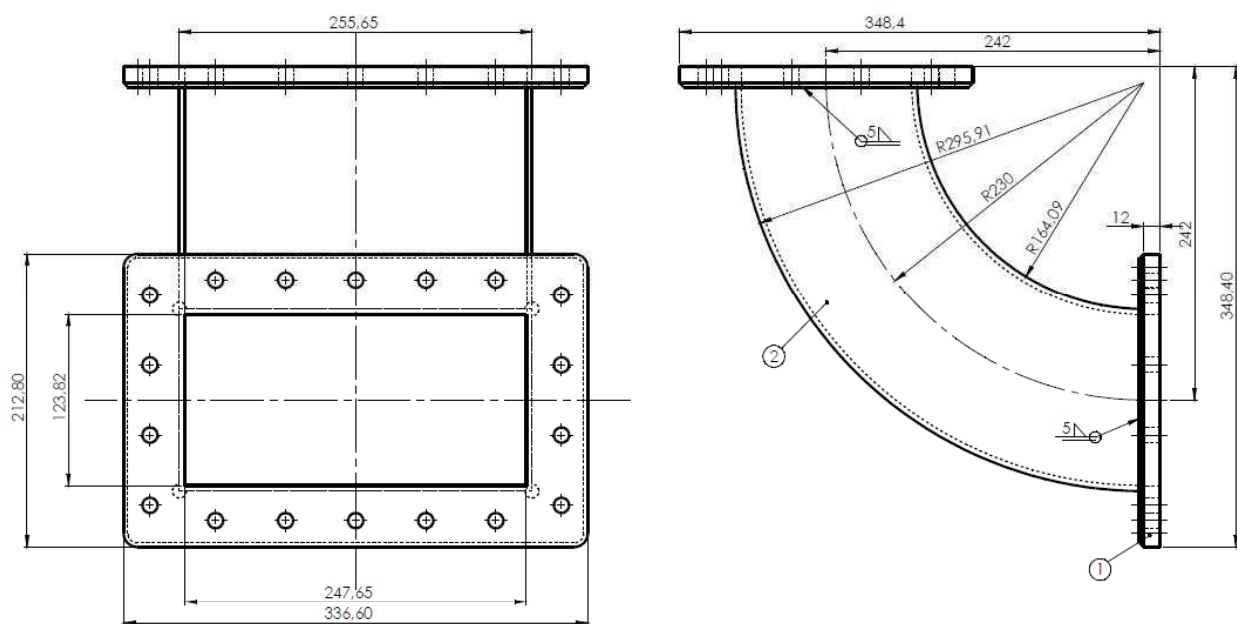
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Dimensional Drawings (in mm):



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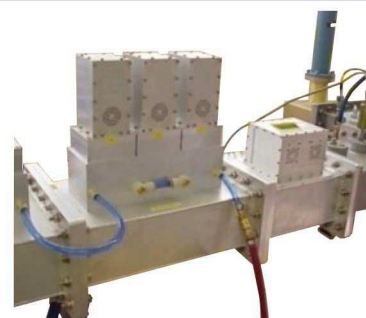
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ECONOTUNER

WR975ECONTUN3WCA

Features:

- Operating software included



Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Frequency	910 MHz $\pm$ 10 MHz
Power level	$\leq$ 100 kW
Waveguide	WR975/R9/WG4
Flange	UDR9
Length (L x W x H)	446 x 337 x 473 mm (Tuner) 300 x 337 x 295 mm (HOMER)
Weight	23.4 kg (Tuner) 8.1 kg (HOMER)
Cooling	Water-cooled
VSWR	$\leq$ 10

Options:

01 PC software	07 devicenet interface
02 rest reflection	08 cable set 3 m
03 pulse operation	09 calibration for 2. frequency 896 or 922 MHz
04 CAN bus interface	10 technical support /hour
05 power supply 90 - 240 V AC	11 high speed stepper motor
06 CAN bus dongle	



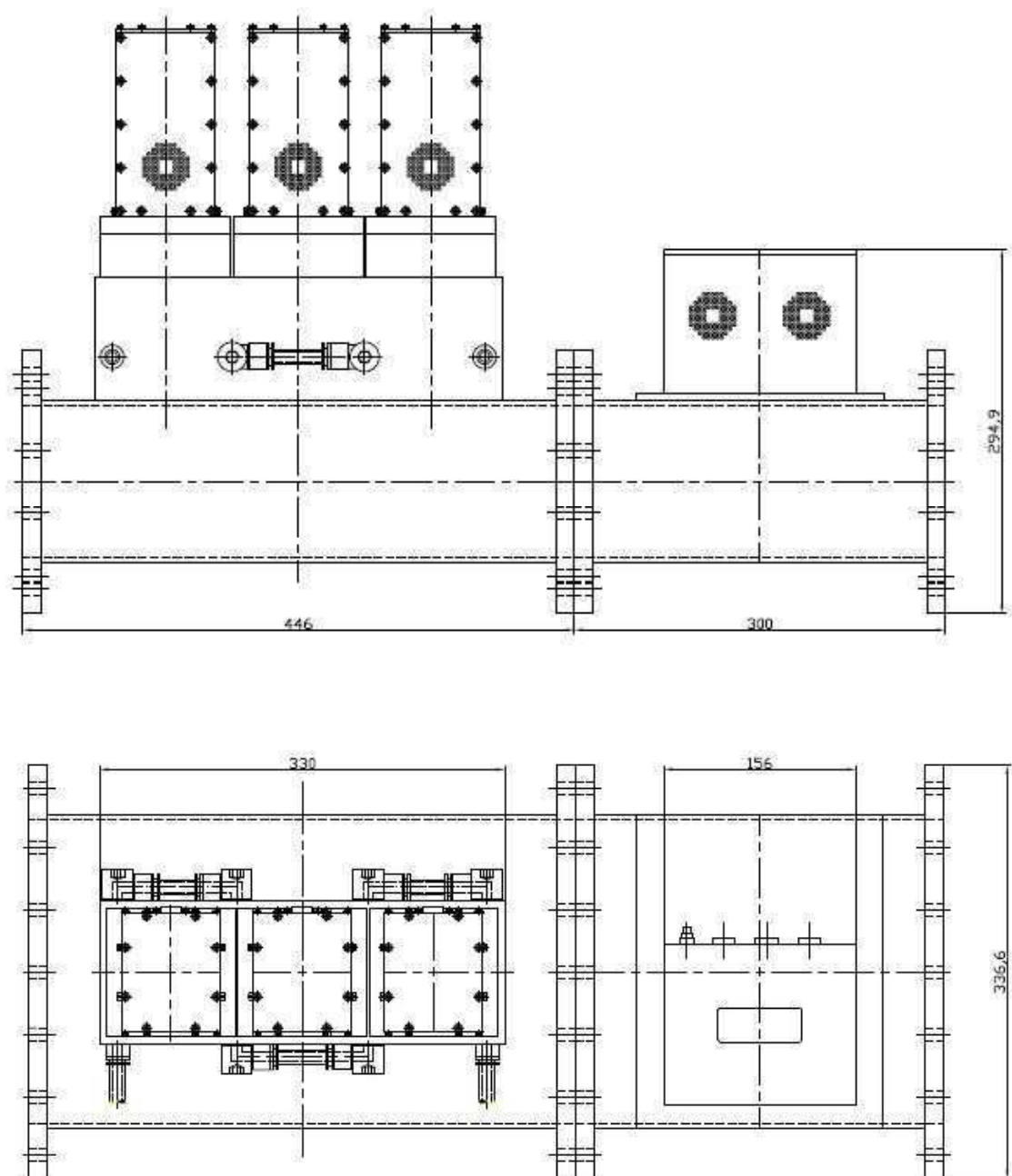
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H - BEND 90° WR975/R9/WG4

WR975HB90R348LA

Features:

- Welded finish
- Light weight (Aluminum waveguide)



Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Weight	7 kg
Frequency	915 MHz $\pm$ 10 MHz
Power level	$\leq$ 200 kW
VSWR	$\leq$ 1.05
Flange	UDR9
Radius	348 mm



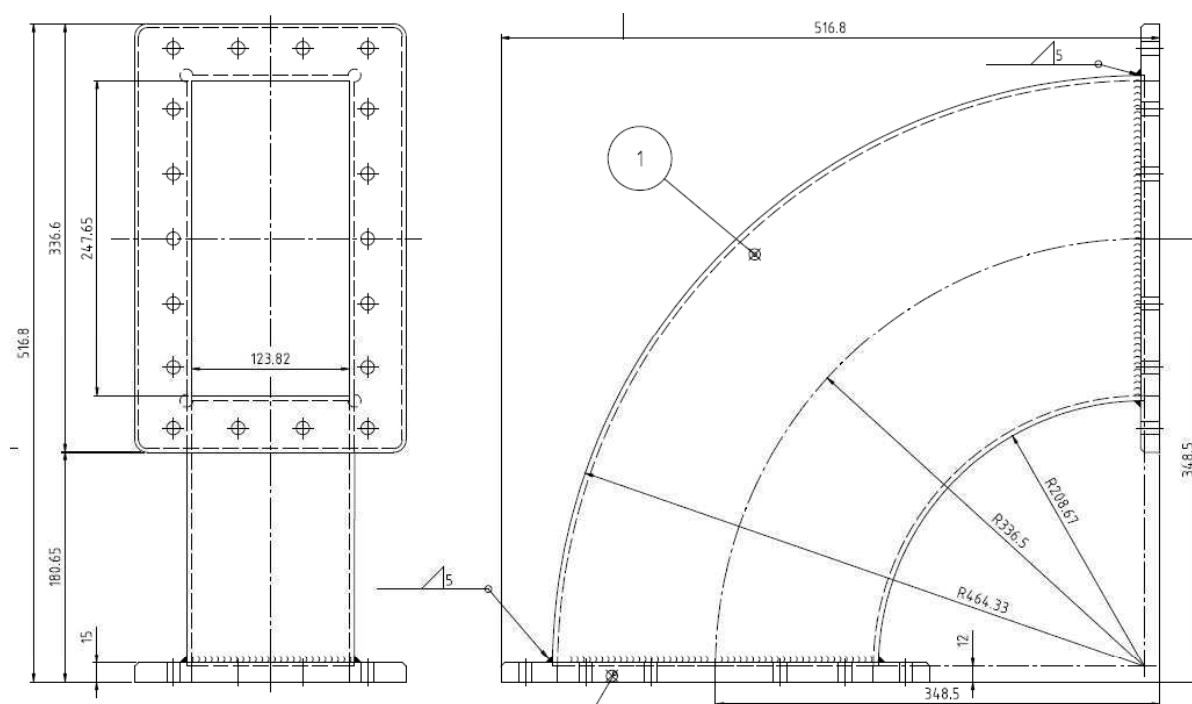
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3 - STUB - TUNER

WR975PTUN3A

Features:

- With digital position indicator



Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Frequency	910 MHz $\pm$ 10 MHz
Power level	$\leq$ 100 kW
Waveguide	WR975/R9/WG4
Flange	UDR9
Length (L x W x H)	446 x 337 x 473 mm
Weight	23 kg
Cooling	Air-cooled
VSWR	$\leq$ 10



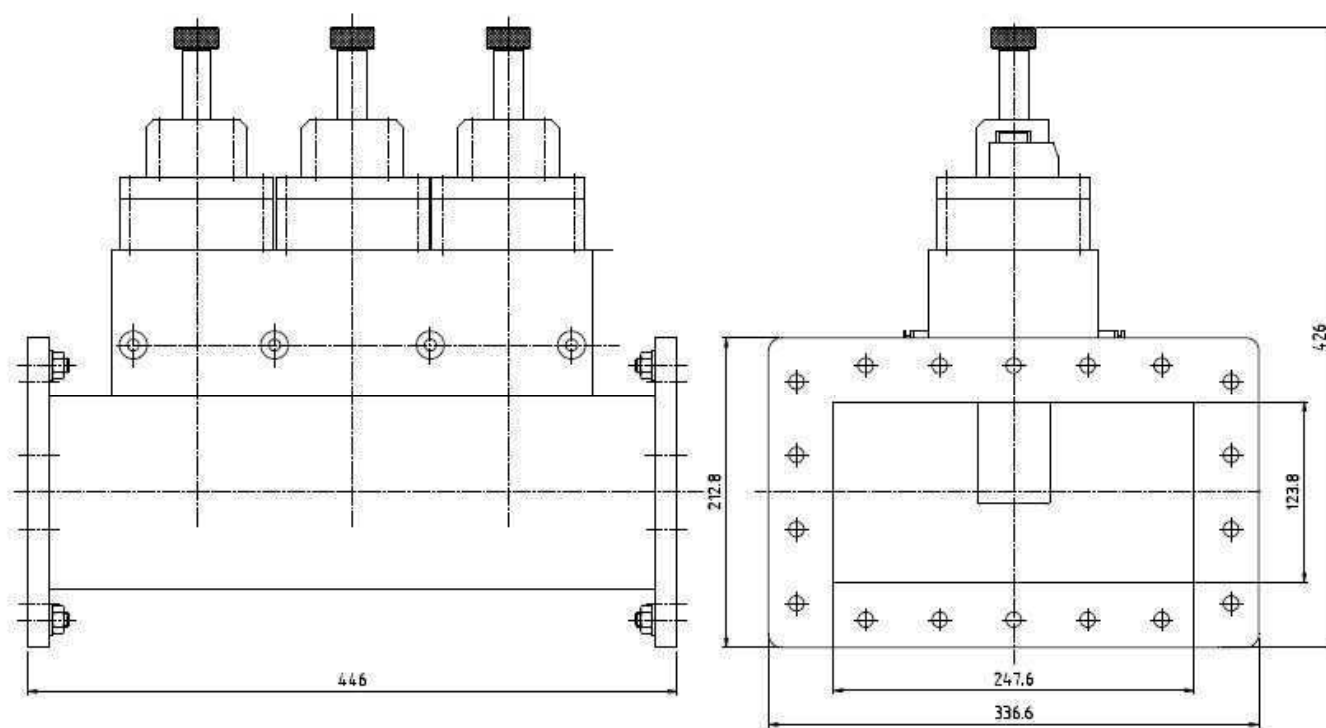
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SLIDING SHORT

WR975SHORTDCLA

Features:

- With precision adjustment
- With position indicator
- Light weight (Aluminum waveguide)
- Without contact

Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Weight	28 kg
Frequency	915 MHz $\pm$ 20 MHz
Power level	$\leq$ 100 kW
Waveguide	WR975/R9/WG4
Flange	UDR9
Adjustment range	180 mm



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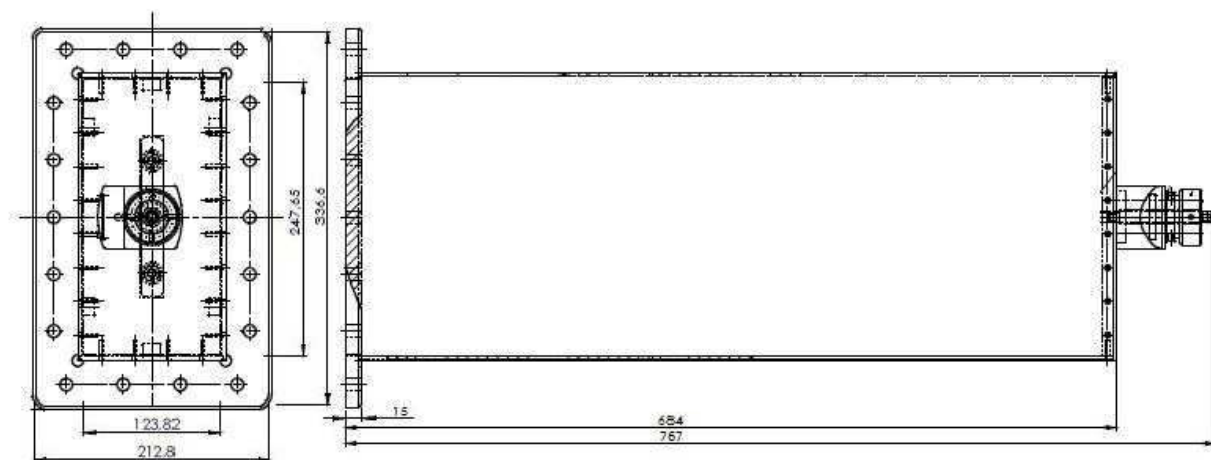
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POWER - SPLITTER

T - VERSION E - PLANE WR975TESPLITTERA

Features:

- Light weight (Aluminum waveguide)



Specifications:

Material	Aluminum
Finish	Natural
Weight	14 kg
Frequency	915 MHz $\pm$ 20 MHz
Power level	$\leq$ 100 kW
VSWR	$\leq$ 1.1 (at matched loads)
Waveguide	WR975/R9/WG4
Flange	UDR9
Balance	$\pm$ 0.1 dB (at matched loads, both outputs)
Insertion loss	$\leq$ 0.1 dB



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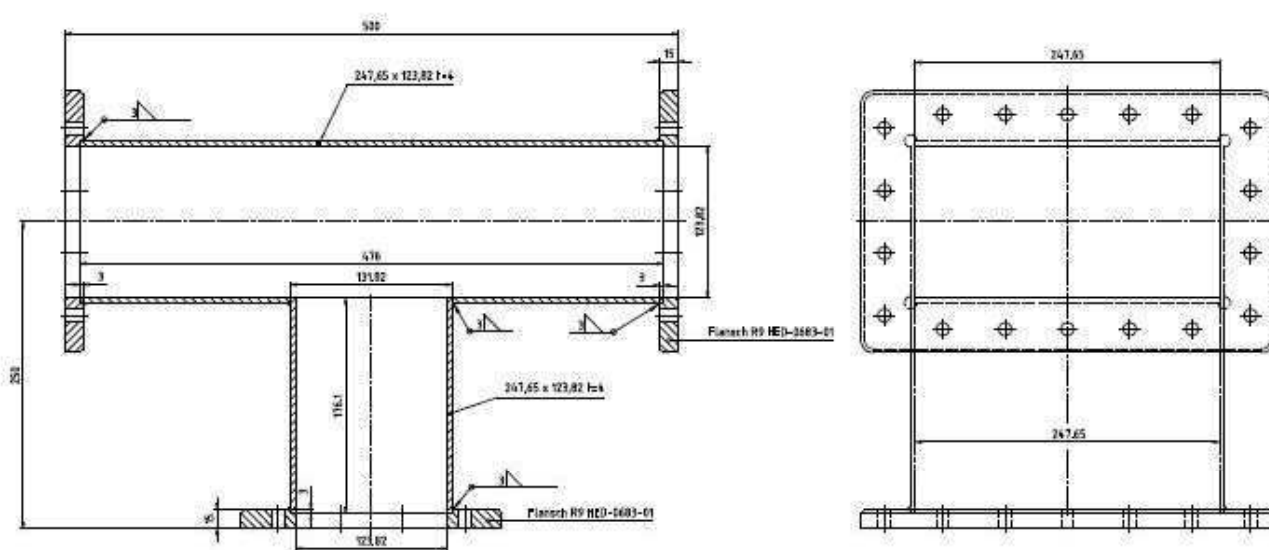
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POWER - SPLITTER

T - VERSION H - PLANE WR975THSPLITTERA

Features:

- Light weight (Aluminum waveguide)

Specifications:

Material	Aluminum
Finish	Natural
Weight	14 kg
Frequency	915 MHz $\pm$ 20 MHz
Power level	$\leq$ 100 kW
VSWR	$\leq$ 1.1 (at matched loads)
Waveguide	WR975/R9/WG4
Flange	UDR9
Balance	$\pm$ 0.1 dB (at matched loads, both outputs)
Insertion loss	$\leq$ 0.1 dB



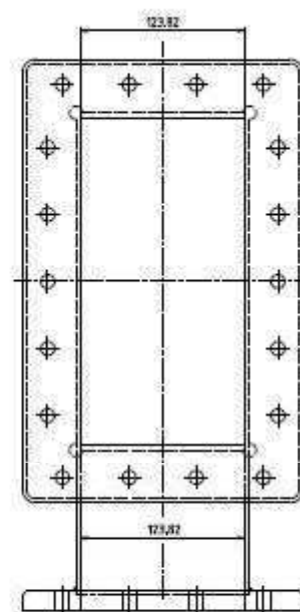
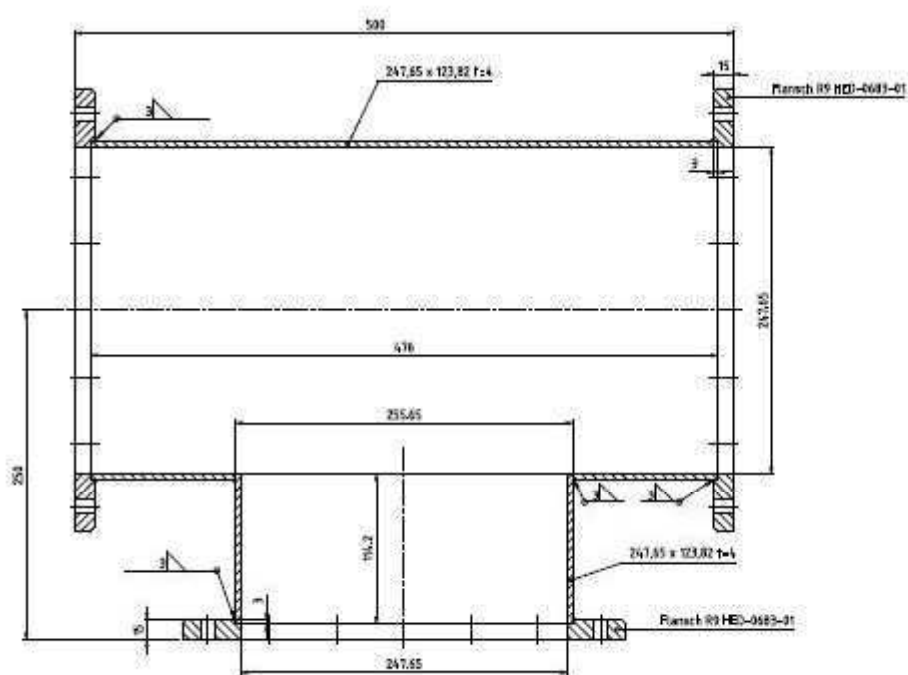
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Version: April 2017, AF



GAS BARRIER WINDOW

WR975WINDOWQC05A

Features:

- Quartz glass window
- Light weight (Aluminum flange)
- Impedance matched (calibrated)

Specifications:

Material	Aluminum with natural finish
Weight	12 kg
Flange	UDR9
Quartz glass thickness	5 mm
Vacuum seals	Viton
Power level	≤ 100 kW
Frequency	915 MHz ± 20 MHz
VSWR	≤ 1.1
Insertion loss	< 0.1 dB
Options	Available as non-calibrated version (WR975WINDOWQ05A)



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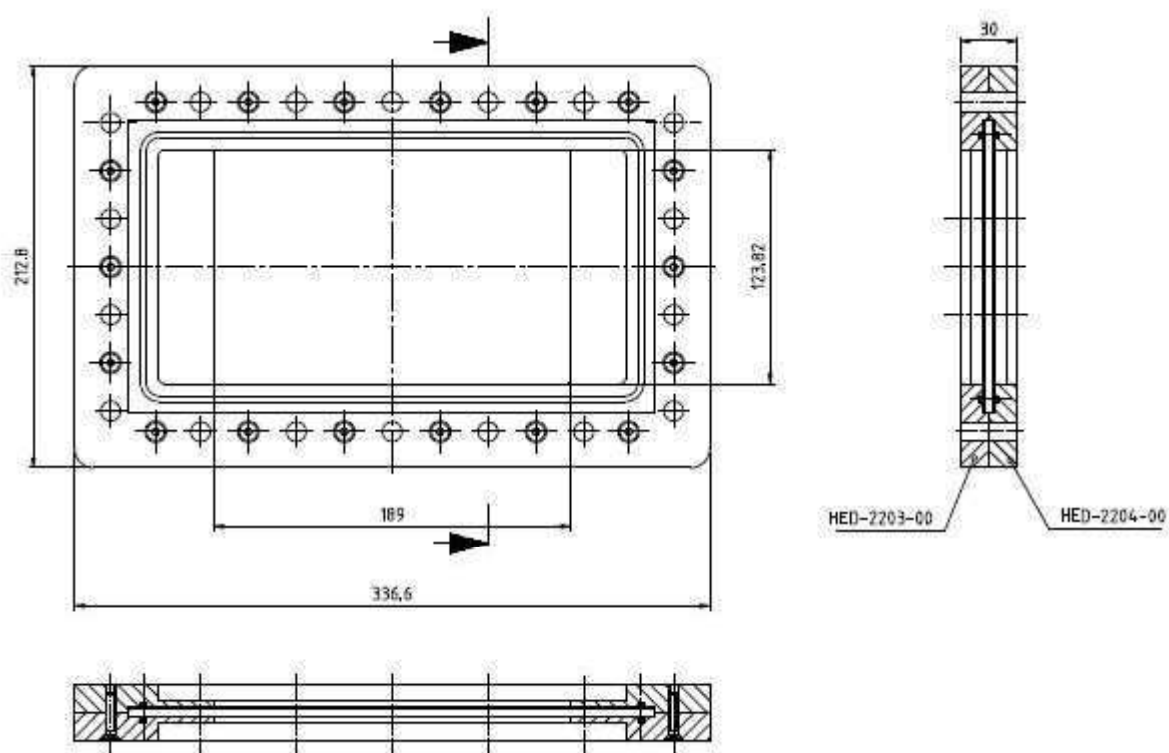
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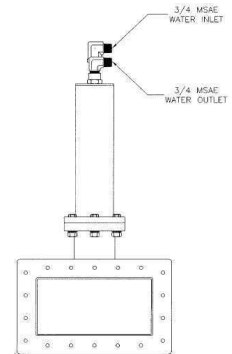
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WATER LOAD 30 - 75 KW

WR975WLOAD030SA

Features:

- 30 - 75 kW power
- Light weight (Aluminum waveguide)



Specifications:

Frequency	915 MHz $\pm$ 20 MHz
Power	30 - 75 kW
Storage temperature	-10°C ... +70°C
Waveguide	WR975/R9/WG4
Flange	UDR9
Water connection	G 3/4"
Material	Aluminum alloy with clear finish
Weight	26.7 kg



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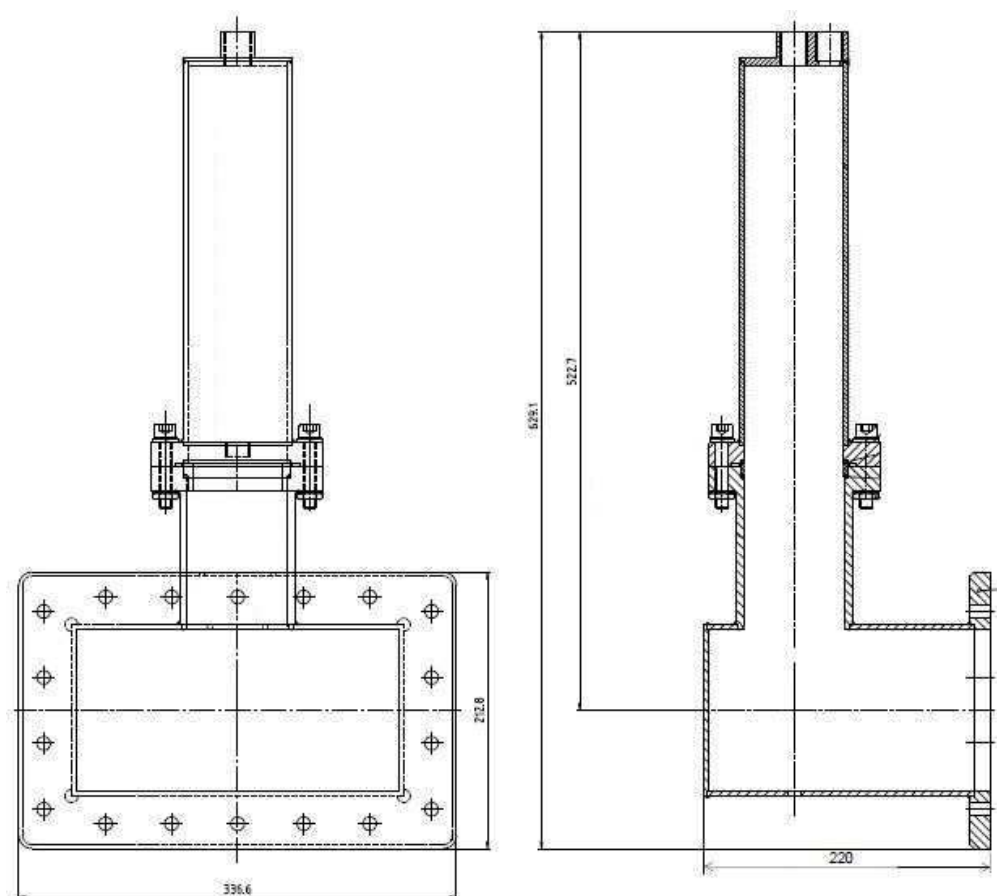
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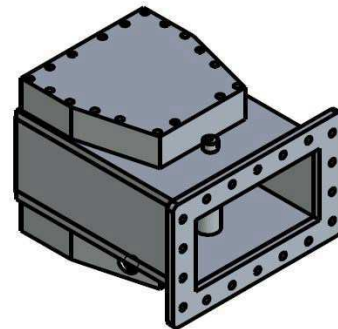
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WATER LOAD 100 KW

WR975WLOAD100NOA

Features:

- 100 kW power
- Light weight (Aluminum waveguide)
- Position-independant installation



Specifications:

Frequency	915 MHz $\pm$ 20 MHz
Power	100 kW
Storage temperature	-10°C ... +70°C
Waveguide	WR975/R9/WG4
Flange	UDR9
Water connection	G 3/4"
Material	Aluminum alloy with clear finish
Weight	17 kg



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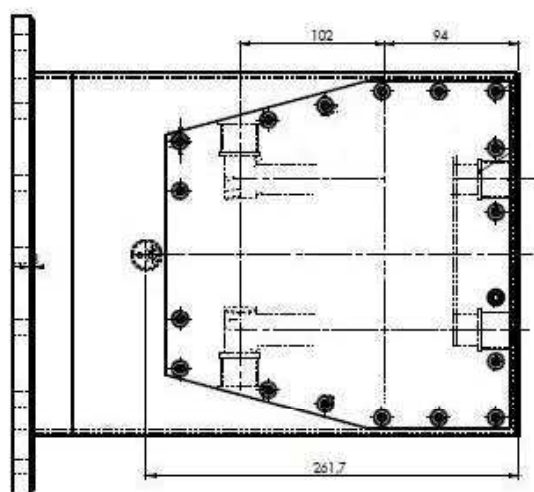
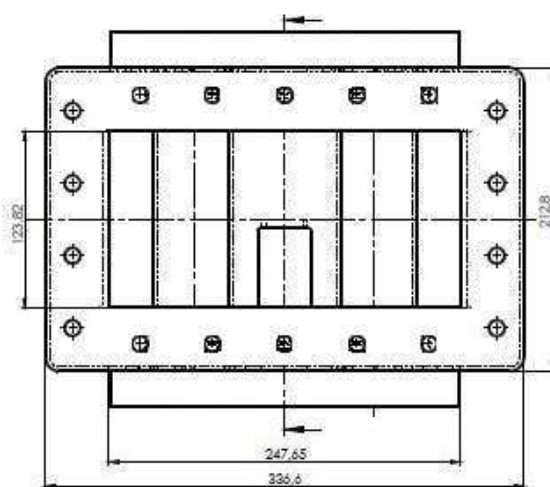
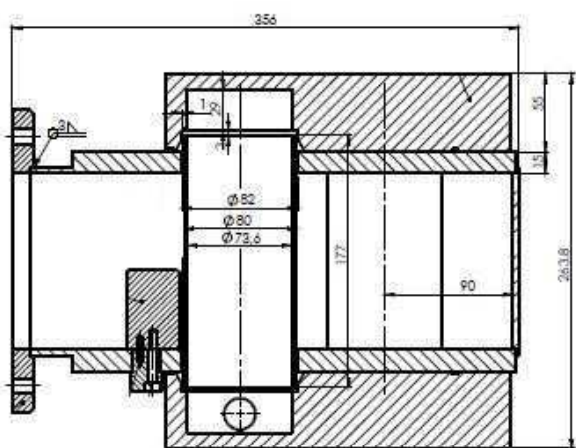
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WATER LOAD 100 KW

WR975WLOAD100SA

Features:

- 100 kW power
- Light weight (Aluminum waveguide)

Specifications:

Frequency	915 MHz $\pm$ 20 MHz
Power	100 kW
Storage temperature	-10 °C ... +70 °C
Waveguide	WR975/R9/WG4
Flange	UDR9
Water connection	R 1/2"
Material	Aluminum alloy with clear finish
Weight	9.6 kg



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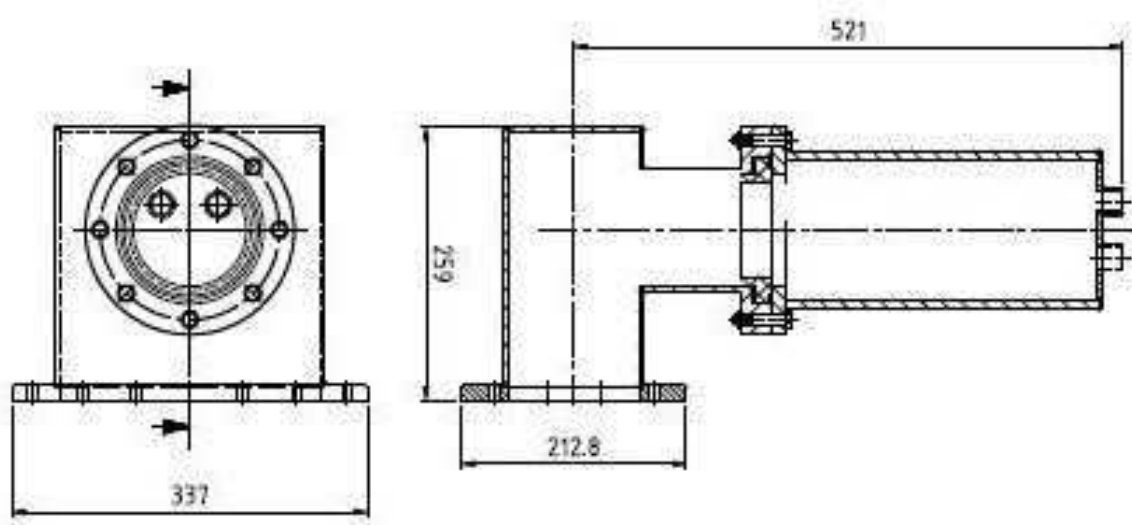
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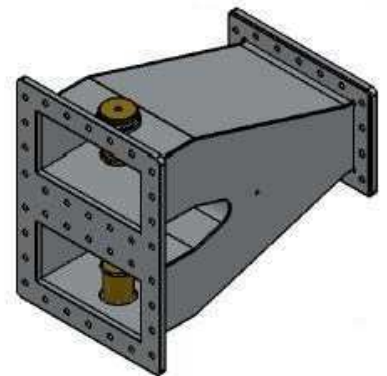
TUNABLE POWER - SPLITTER

Y - VERSION E - PLANE

WR975YESPLITTERSA-TUN

Features:

- Light weight (Aluminum waveguide)
- Energy distribution tunable with 2 stubs



Specifications:

Material	Aluminum
Finish	Natural
Weight	14 kg
Frequency	915 MHz $\pm$ 20 MHz
Power level	$\leq$ 100 kW
VSWR	$\leq$ 1.1 (at matched loads)
Waveguide	WR975/R9/WG4
Flange	UDR9



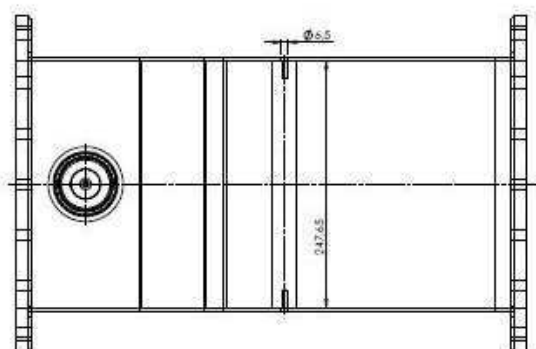
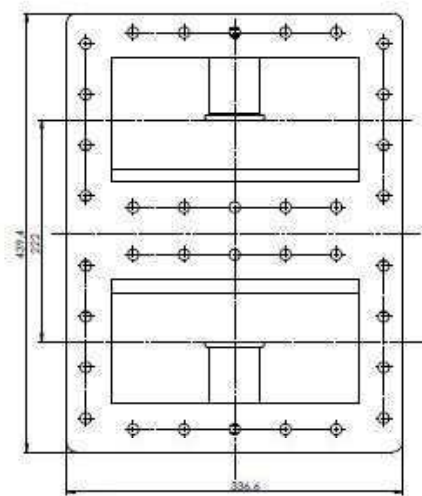
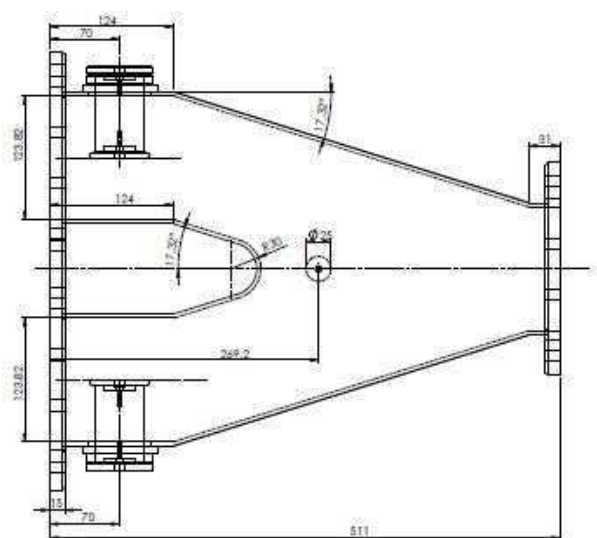
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Dimensional Drawings (in mm):



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Version: June 2017, AF

POWER - SPLITTER

Y - VERSION H - PLANE WR975YHSPLITTERA

Features:

- Light weight (Aluminum waveguide)



Specifications:

Material	Aluminum
Finish	Natural
Weight	14 kg
Frequency	915 MHz $\pm$ 20 MHz
Power level	$\leq$ 100 kW
VSWR	$\leq$ 1.15 (at matched loads)
Waveguide	WR975/R9/WG4
Flange	UDR9
Balance	$\pm$ 0.1 dB (at matched loads, both outputs)
Insertion loss	$\leq$ 0.1 dB



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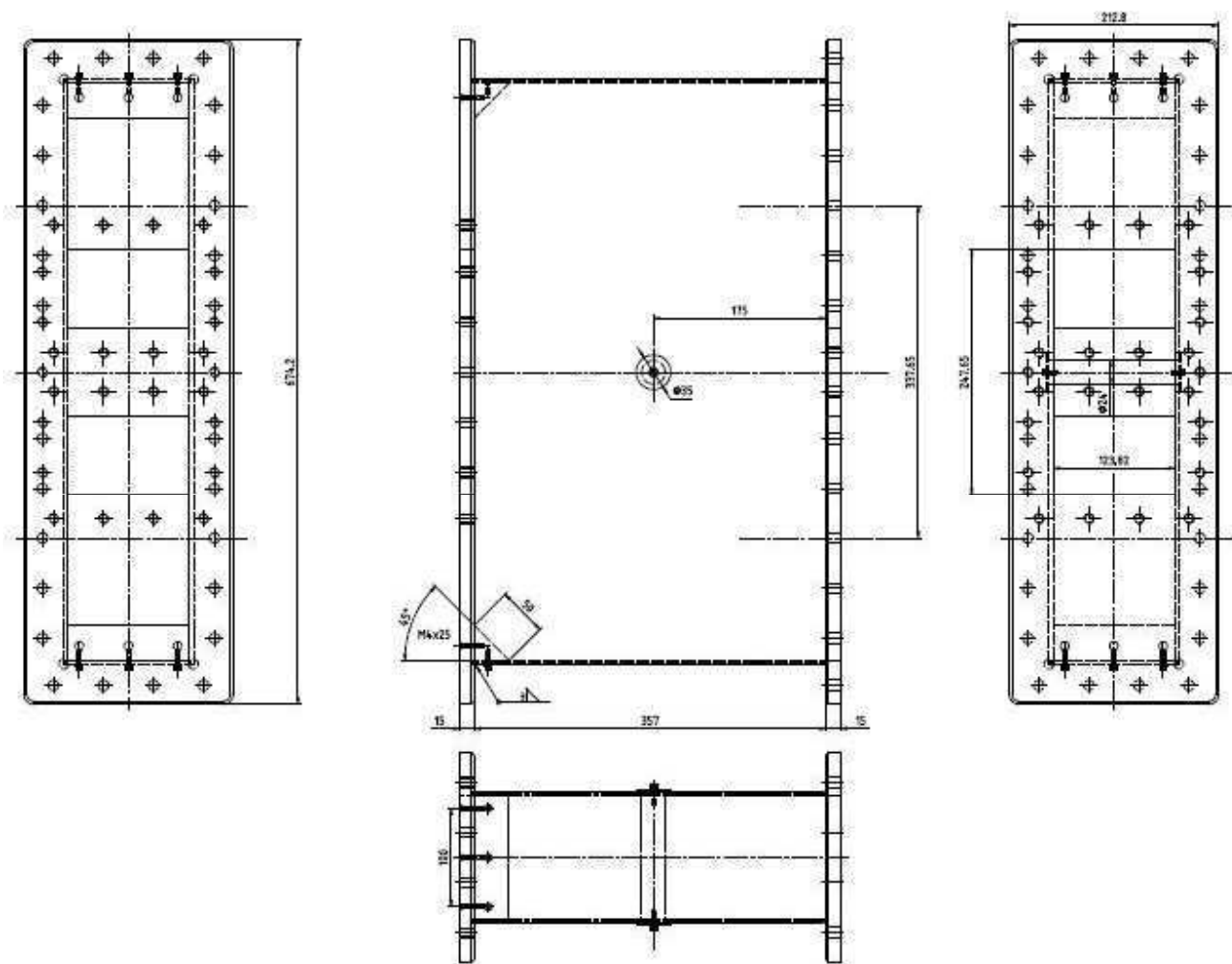
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Version: August 2018, AF

DIRECTIONAL DETECTOR WR430/R22/WG8 FAST IDD131

Features:

- Small housing fast temperature-stable directional detector for rectangular waveguide WR430/R22/WG8 with SMA-connector
- Tunnel diode detector
- For 2.45 GHz industrial applications
- Reversing the coupler causes it to sample the wave propagating in opposite direction
- Low video resistance for fast pulse rise/fall times



Specifications:

Frequency range	2.45 GHz $\pm$ 25 MHz
Directivity	> 25 dB
Statistical spread of output voltage	$\pm$ 1 dB (3- σ deviation)
Output voltage polarity	Negative
Output voltage temp. variation (5 to 65 °C)	< 0.5 dB
Video resistance (typ)	120 Ω
Output DC connector	SMA-F
Waveguide of destination	WR430/R22/WG8



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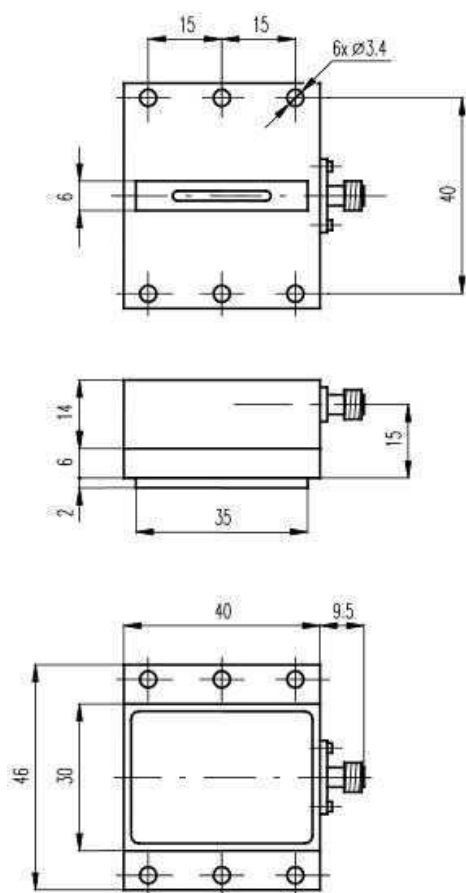
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Typical Transfer Characteristic:

P (W)	V _{dc} (mV)
850	10
1400	20
2800	50
4300	80
5300	100
8000	130



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E - BEND 90° WR430/R22/WG8

WR430EB90R100LA/SA

Features:

- Low cost and standard version available
- Light weight (Aluminum waveguide)



Low cost version

Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Frequency	2.45 GHz $\pm$ 30 MHz
Power level	$\geq$ 30 kW
VSWR	$\leq$ 1.05
Flange	PDR22
Radius	100 mm
Options	Low cost version (welded finish): WR430EB90R100LA Standard version (machine finish): WR430EB90R100SA



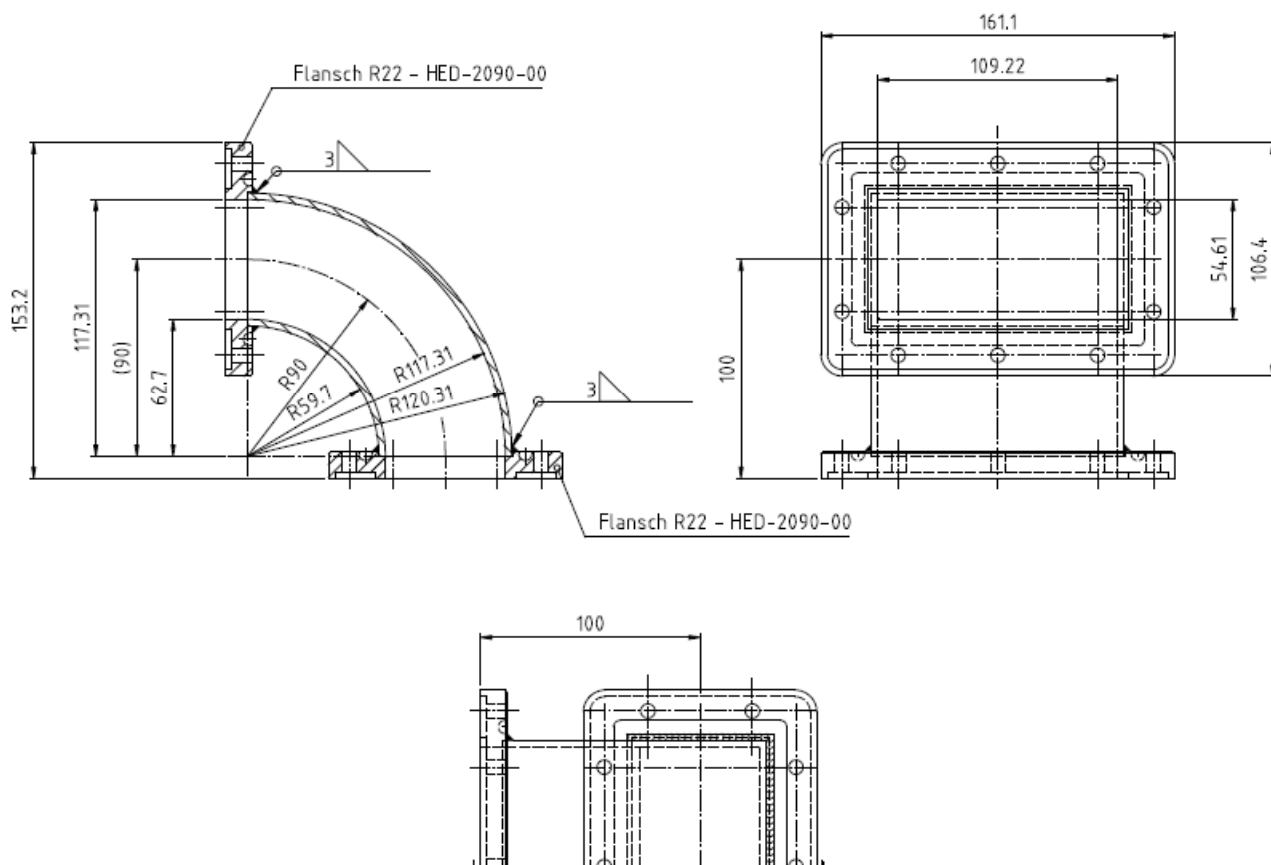
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Version: August 2018, AF

H - BEND 90° WR430/R22/WG8

WR430HB90R150LA/SA

Features:

- Low cost and standard version available
- Light weight (Aluminum waveguide)



Low cost version

Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Frequency	2.45 GHz $\pm$ 30 MHz
Power level	$\geq$ 30 kW
VSWR	$\leq$ 1.05
Flange	PDR22
Radius	150 mm
Options	Low cost version (welded finish): WR430HB90R150LA Standard version (machine finish): WR430HB90R150SA



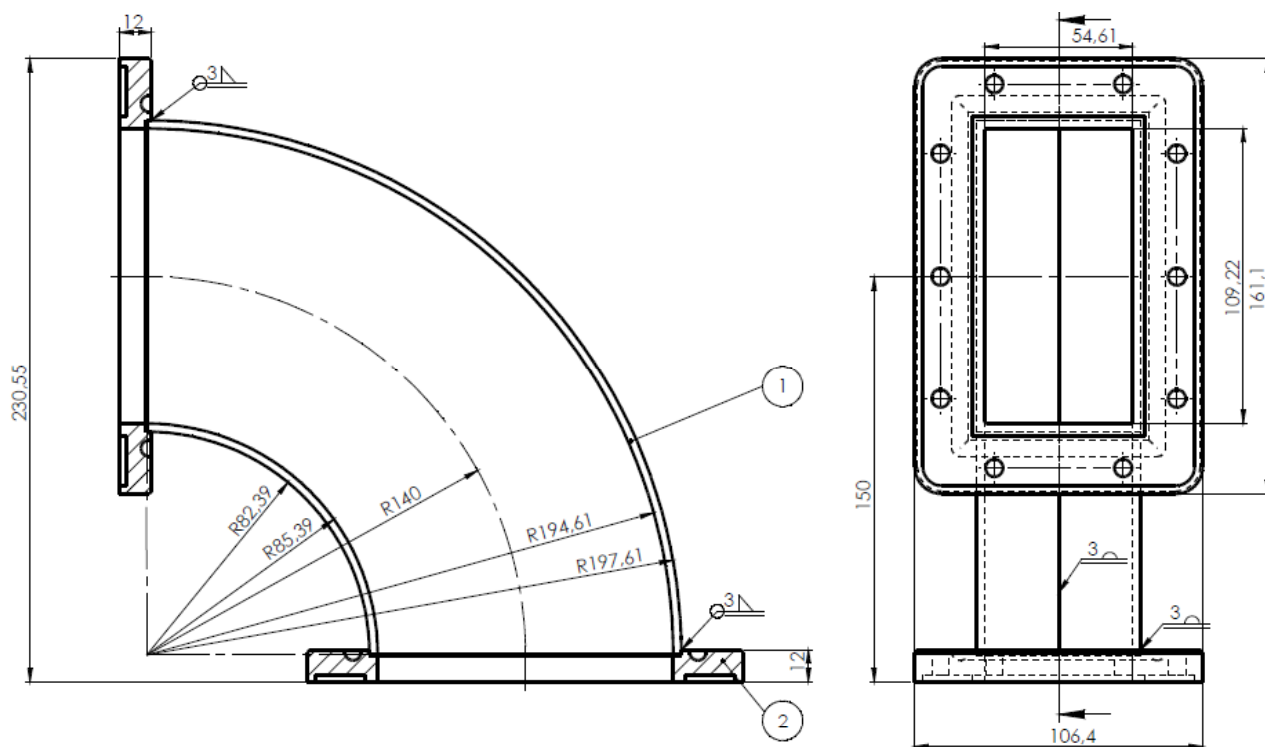
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ISOLATOR 10 KW STANDARD

WR430ISOLATOR10SA/TA

Features:

- 10 kW forward or reflected power
- Light weight (Aluminum waveguide)

Specifications:

Frequency	2.45 GHz $\pm$ 25 MHz
Isolation	$\geq$ 23 dB
Insertion loss	$\leq$ 0.2 dB
Return loss	$\geq$ 23 dB
Power (forward or reflected)	10 kW cw
Monitor coupling	-66.5 dB $\pm$ 0.5 dB (@ 40 °C)
RF leakage	< 0.5 mW/cm ²
Water temperature	Inlet: +10 °C ... +40 °C Outlet: $\leq$ +50 °C
Storage temperature	-10 °C ... +70 °C
Static water pressure	$\leq$ 600 kPa
Waveguide	WR430/R22/WG8
Flange	UDR22 (WR430ISOLATOR10SA) Available with transition to UDR26 outlet (WR430ISOLATOR10TA)
Monitor connector	N type female
Water connection	G 3/8"
Mounting position	Any
Material	Aluminum alloy with clear finish
Weight	5.5 kg



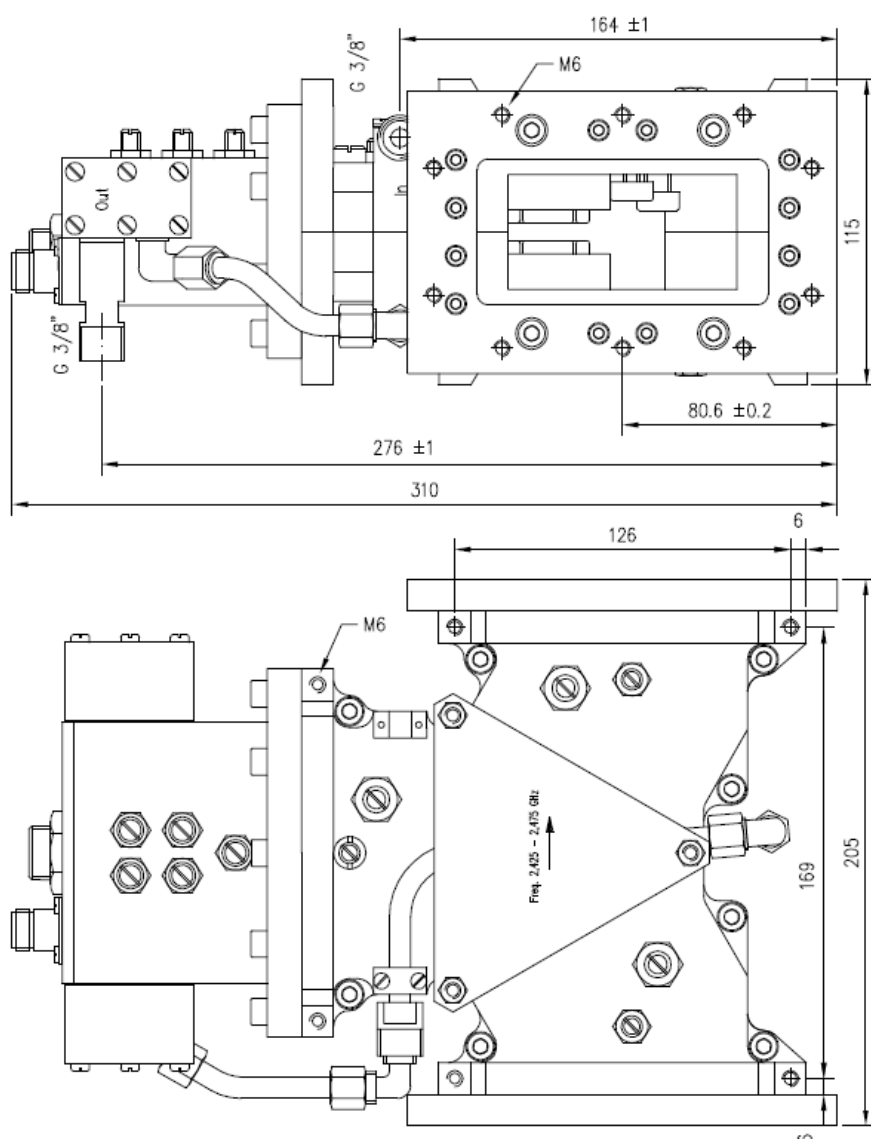
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ISOLATOR 30 KW STANDARD

WR430ISOLATOR30SA

Features:

- 30 kW forward and 15 kW reflected power
- Light weight (Aluminum waveguide)

Specifications:

Frequency	2.45 GHz $\pm$ 25 MHz
Isolation	$\geq$ 23 dB
Insertion loss	$\leq$ 0.2 dB
VSWR	$\leq$ 1.2
Power	30 kW cw forward 15 kW cw reflected
Monitor coupling	-60 dB $\pm$ 1 dB
Water temperature	+15°C ... +40°C
Waveguide	WR430/R22/WG8
Flange	UDR22
Monitor connector	SMA female (2x)
Water connections at circulator	G 1/4" (2x)
Connections at water load	G 3/4" (2x)
Material	Aluminum alloy with chromatized finish



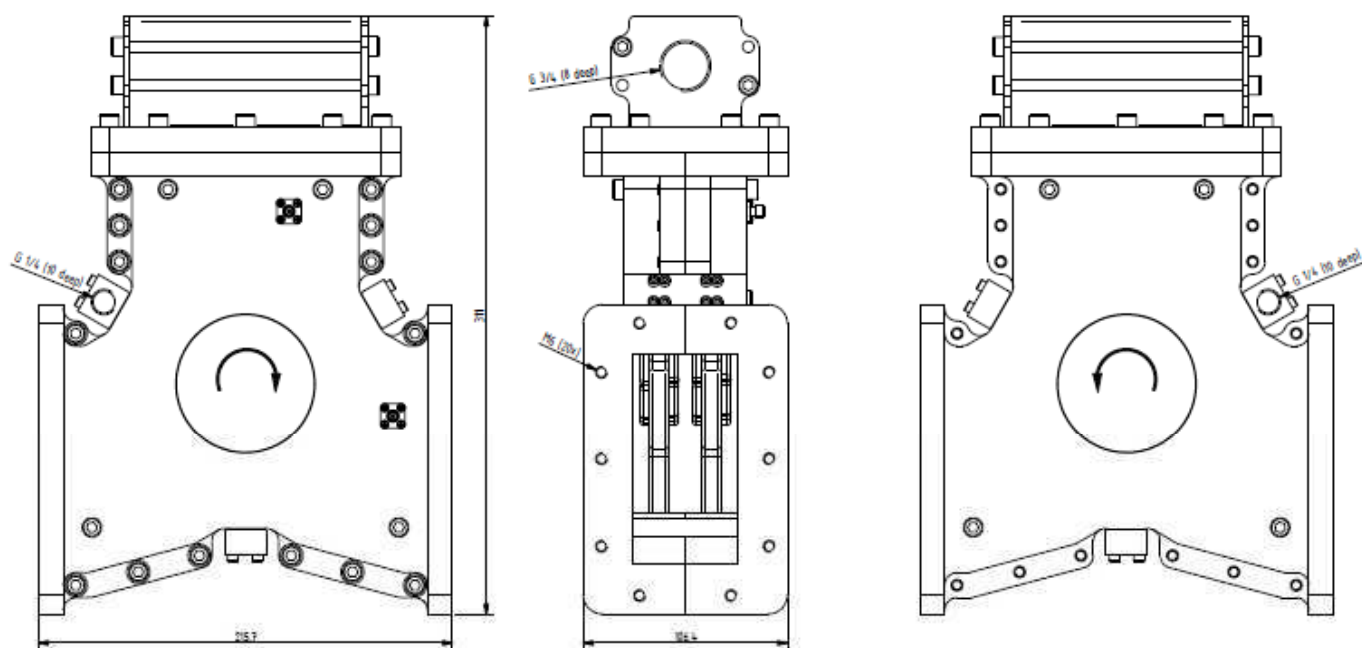
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TRANSITION WAVEGUIDE

WR430TRANS340A/SA

Features:

- Transition waveguide long (WR430TRANS340A) or short version (WR430TRANS340SA)
- Light weight (Aluminum waveguide)



WR430TRANS340A

Specifications:

Material	Aluminum with silver-coloured Chromate conversion coating
Waveguide	WR430/R22/WG8 to WR340/R26/WG9A
Frequency	2.45 GHz $\pm$ 25 MHz
Allowed power	$\leq$ 15 kW under matched load conditions
VSWR	$\leq$ 1.05 (WR430TRANS340A) $\leq$ 1.1 (WR430TRANS340SA)
Lenght	130 mm (long version, WR430TRANS340A) 60 mm (short version, WR430TRANS340SA)



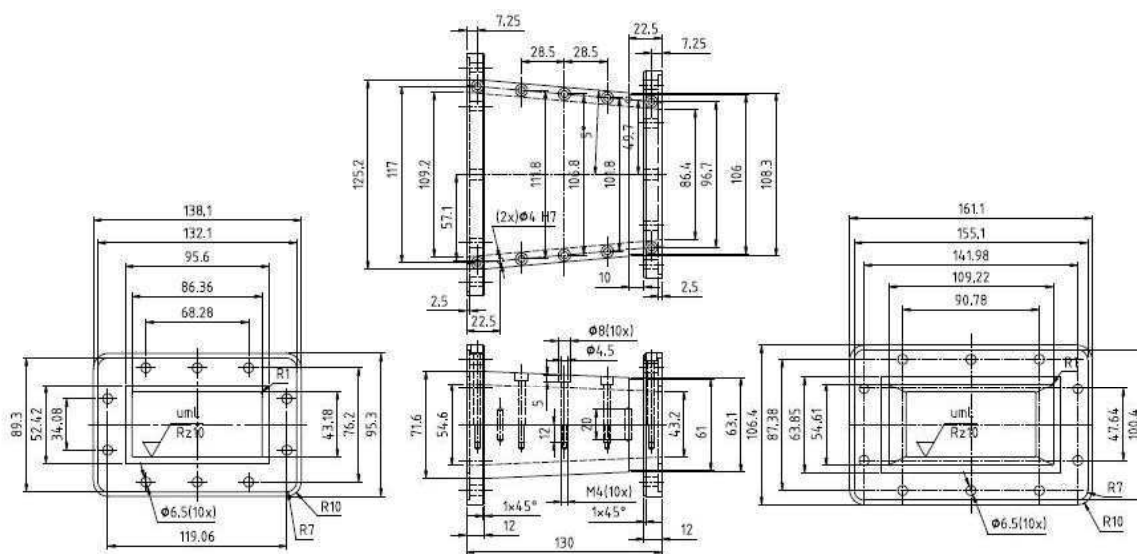
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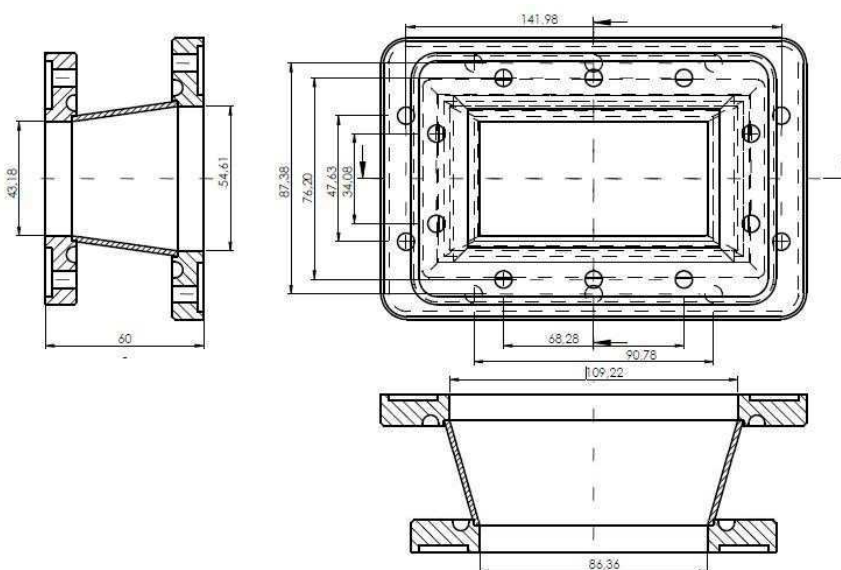
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Dimensional Drawings (in mm):



Long version (WR430TRANS340A)



Short version (WR430TRANS340SA)



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WATER LOAD 30 KW

WR430WLOAD030SA

Features:

- 30 kW power
- Light weight (Aluminum waveguide)

Specifications:

Frequency	2.45 GHz $\pm$ 25 MHz
Return loss	$\geq$ 23 dB
Power	30 kW cw
Monitor coupling	-60 dB $\pm$ 1 dB
Water temperature	Inlet: +15 °C ... +40 °C Outlet: $\leq$ +50 °C
Storage temperature	-10 °C ... +70 °C
Static water pressure	$\leq$ 600 kPa
Waveguide	WR430/R22/WG8
Flange	PDR22
Monitor connector	SMA female
Water connection	G 3/4" (2x)
Mounting position	any
Material	Aluminum alloy with clear finish
Weight	1.5 kg



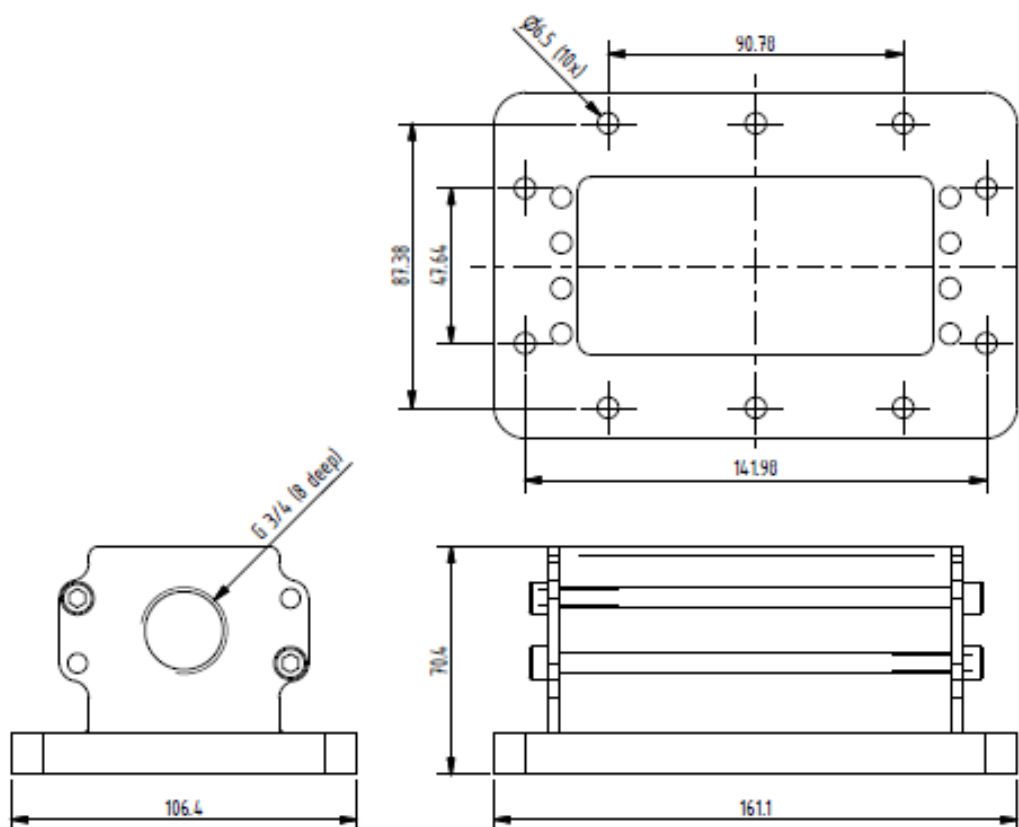
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MICROWAVE DETECTOR FAST 915 MHZ/2.45 GHZ

IDM212N/BNC OR IDM212P/BNC

Features:

- Fast temperature-stable microwave coaxial detector with N- and BNC-connector
- Tunnel diode
- For 915 MHz/2.45 GHz industrial applications
- Low video resistance for fast pulse rise/fall times
- Standard output voltage polarity is negative (IDM212N/BNC), but optionally can be positive (IDM212P/BNC)



Specifications:

Frequency range	915 MHz $\pm$ 10 MHz	2.45 GHz $\pm$ 0.1 GHz
Output voltage ($P_{IN} = 1$ mW, $R_{LOAD} = 33$ k Ω)	190 mV typ	220 mV typ
Frequency response variation	$\pm$ 0.25 dB max	$\pm$ 0.5 dB max
Statistical spread of output voltage	$\pm$ 1 dB (3- σ deviation)	
Output voltage temperature variation (5 - 65 °C)	< 0.5 dB	
Output voltage polarity	Negative (optionally positive)	
Maximum input power	10 mW	
VSWR	1.3 typ, 2 max	
Video resistance	120 Ω typ	
RF input connector	N-M	
DC output connector	BNC-F	
Dimensions in mm (L x W x H)	58 x 26 x 26	



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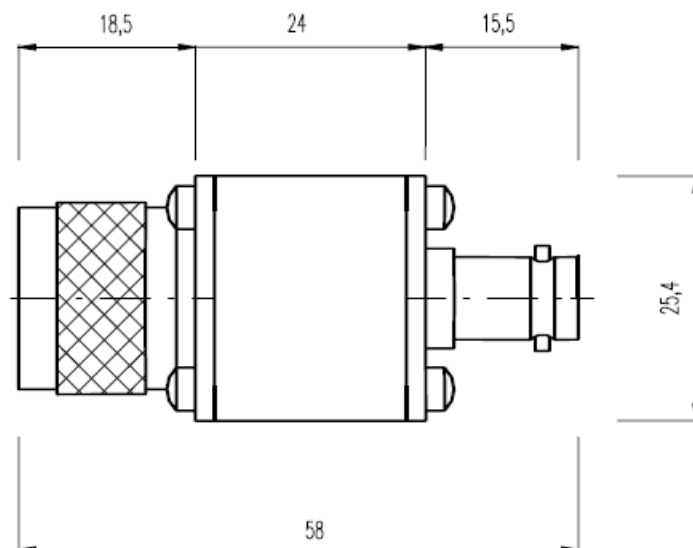
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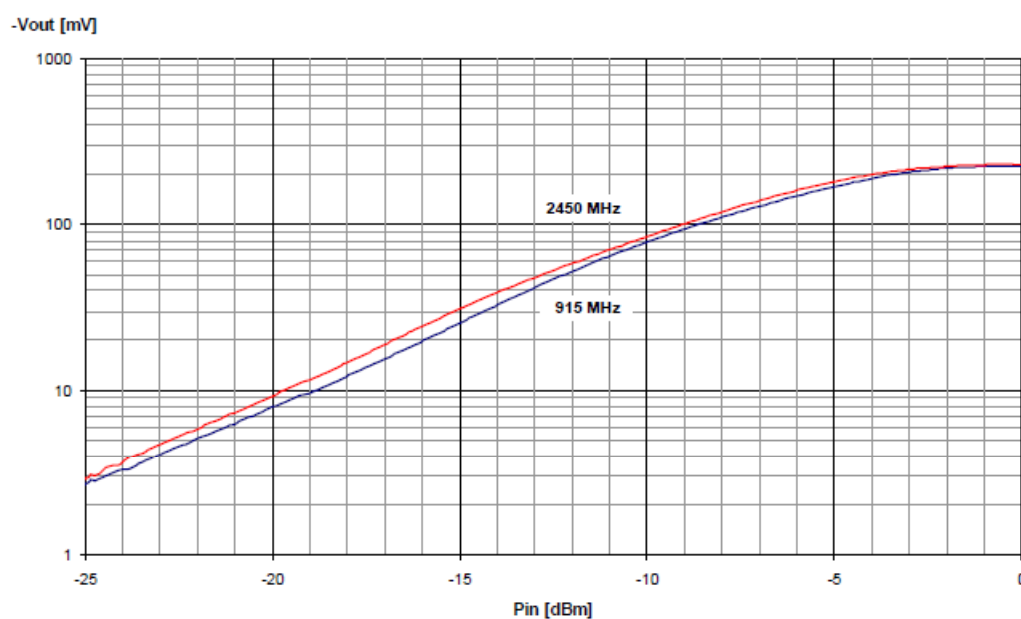


Dimensional Drawings (in mm):



Performance Chart:

Typical transfer characteristic ($f = 915 \text{ MHz}$ and 2450 MHz , $R_{\text{LOAD}} = 33 \text{ k}\Omega$, $T_A = 25^\circ\text{C}$)



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MICROWAVE DETECTOR

STANDARD 915 MHz/2.45 GHz

IDM213SMA

Features:

- Microwave coaxial detector with SMA-connector
- Zero-bias Schottky diode
- For 915 MHz and 2.45 GHz industrial applications



Specifications:

Frequency range	915 MHz $\pm$ 10 MHz	2.45 GHz $\pm$ 0.1 GHz
Output voltage ($P_{IN} = 1$ mW, $R_{LOAD} = 33$ k Ω)	180 mV typ	220 mV typ
Frequency response variation	$\pm$ 0.25 dB max	$\pm$ 0.5 dB max
Statistical spread of output voltage	$\pm$ 1 dB (3- σ deviation)	
Nominal input impedance	50 Ω	
Output voltage temperature variation (5 - 65 °C)	< 3 dB	
Output voltage polarity	Negative	
Maximum input working power	10 mW	
Maximum input power (destruction limit)	100 mW	
VSWR	1.3 typ, 2 max	
Video resistance	9 k Ω typ	
RF input connector	SMA-M	
DC output connector	SMA-F	
Dimensions in mm (L x W x H)	38.7 x 18 x 11	



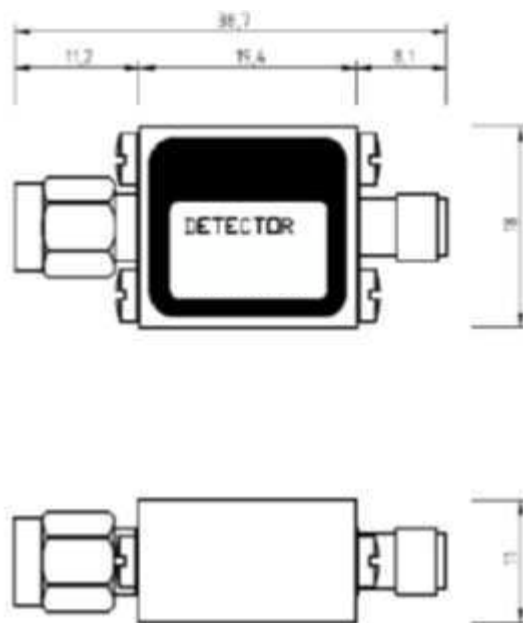
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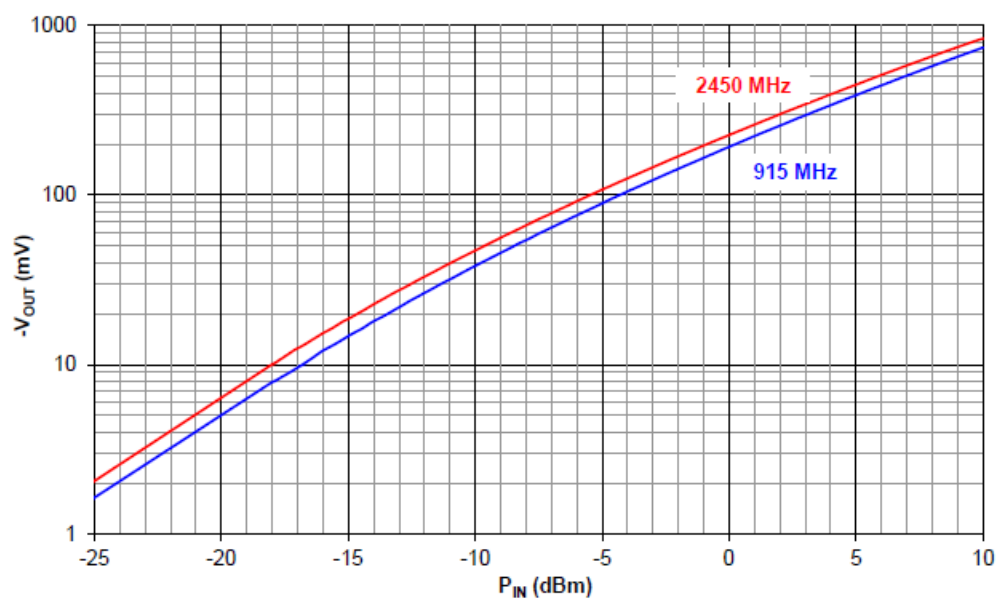


Dimensional Drawings (in mm):



Performance Chart:

Typical transfer characteristics ($f = 915 \text{ MHz}$ and 2.45 GHz , $R_{\text{LOAD}} = 33 \text{ k}\Omega$, $T_A = 25^\circ$)



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MICROWAVE DETECTOR

FAST 915 MHZ/2.45 GHZ

IDM214SMA

Features:

- Fast temperature-stable microwave coaxial detector with SMA-connector
- Tunnel diode
- For 2.45 GHz industrial applications
- Low video resistance for fast pulse rise/fall times



Specifications:

Frequency range	2.45 GHz $\pm$ 0.1 GHz
Output voltage ($P_{IN} = 1$ mW, $R_{LOAD} = 33$ k Ω)	180 mV typ
Frequency response variation	$\pm$ 0.5 dB max
Statistical spread of output voltage	$\pm$ 1 dB (3- σ deviation)
Output voltage temperature variation (5 - 65 °C)	< 0.5 dB
Output voltage polarity	Negative
Maximum input power	10 mW
VSWR	1.3 typ, 2 max
Video resistance	120 Ω typ
Input connector	SMA-M
DC output connector	SMA-F
Dimensions in mm (L x W x H)	42.9 x 22 x 12



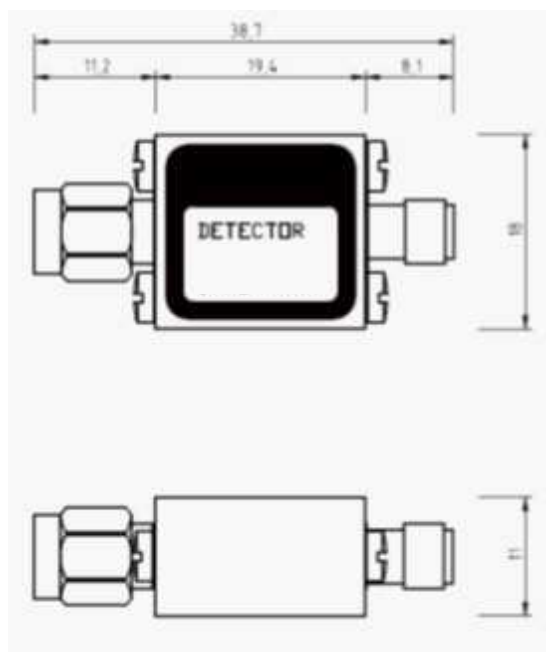
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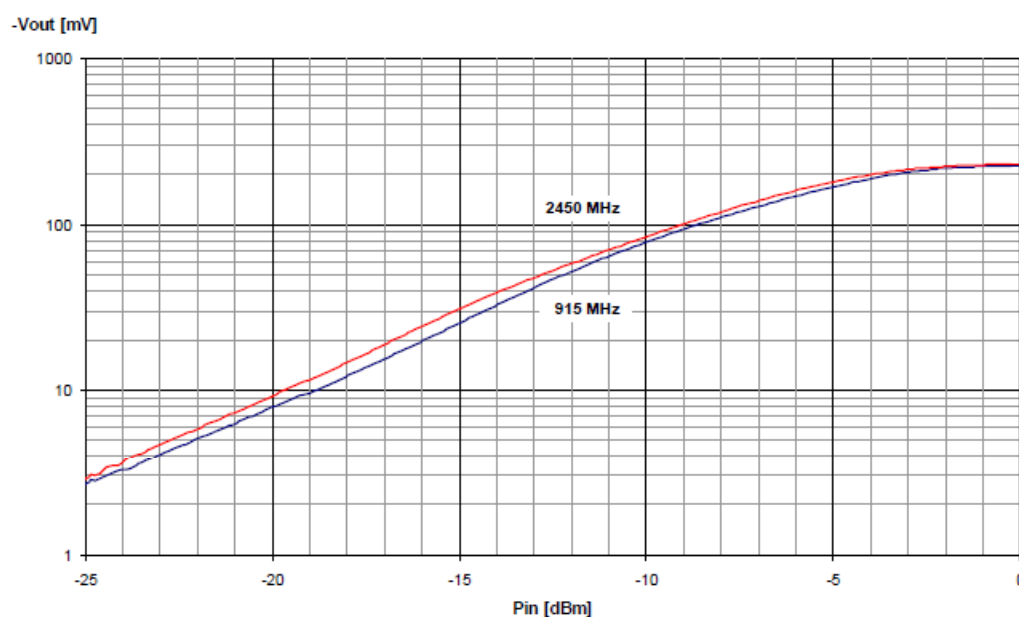


Dimensional Drawings (in mm):



Performance Chart:

Typical transfer characteristic ($f = 915 \text{ MHz}$ and 2450 MHz , $R_{\text{LOAD}} = 33 \text{ k}\Omega$, $T_A = 25^\circ\text{C}$)



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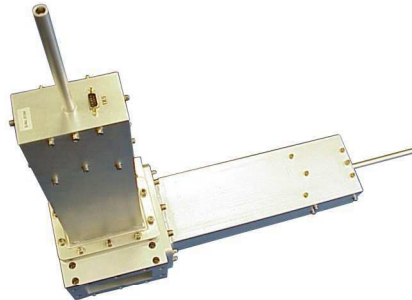
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EH - TUNER

WR340AUTOEHTUN150A

Features:

- With contactless automatic function
- Light weight (Aluminum waveguide)
- Controlling through panel



EH-Tuner



Controlling panel

Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Frequency	2.45 GHz $\pm$ 50 MHz
Power level	$\leq$ 2 kW
Waveguide	WR340/R26/WG9A
Flange	PDR26
Length	150 mm
Cooling	Air-cooled
VSWR	$\leq$ 10
Weight	7.7 kg (EH-Tuner) 5.6 kg (Control unit)



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3 - STUB - TUNER

WR340AUTOTUN174A(02)

Features:

- With automatic function
- Light weight (Aluminum waveguide)
- Controlling through LCD-display and keyboard (WR340AUTOTUN174A) or through coloured touch-panel (WR340AUTOTUN174A02)



3 - Stub - Tuner



Controller with LCD-display



Controller with touch-panel

Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Frequency	2.45 GHz $\pm$ 50 MHz
Power level	$\leq$ 10 kW
Waveguide	WR340/R26/WG9A
Flange	UDR26
Length	174 mm
Cooling	Air-cooled
VSWR	$\leq$ 10
Weight	3.7 kg (Tuner) 5.6 kg (Control unit)



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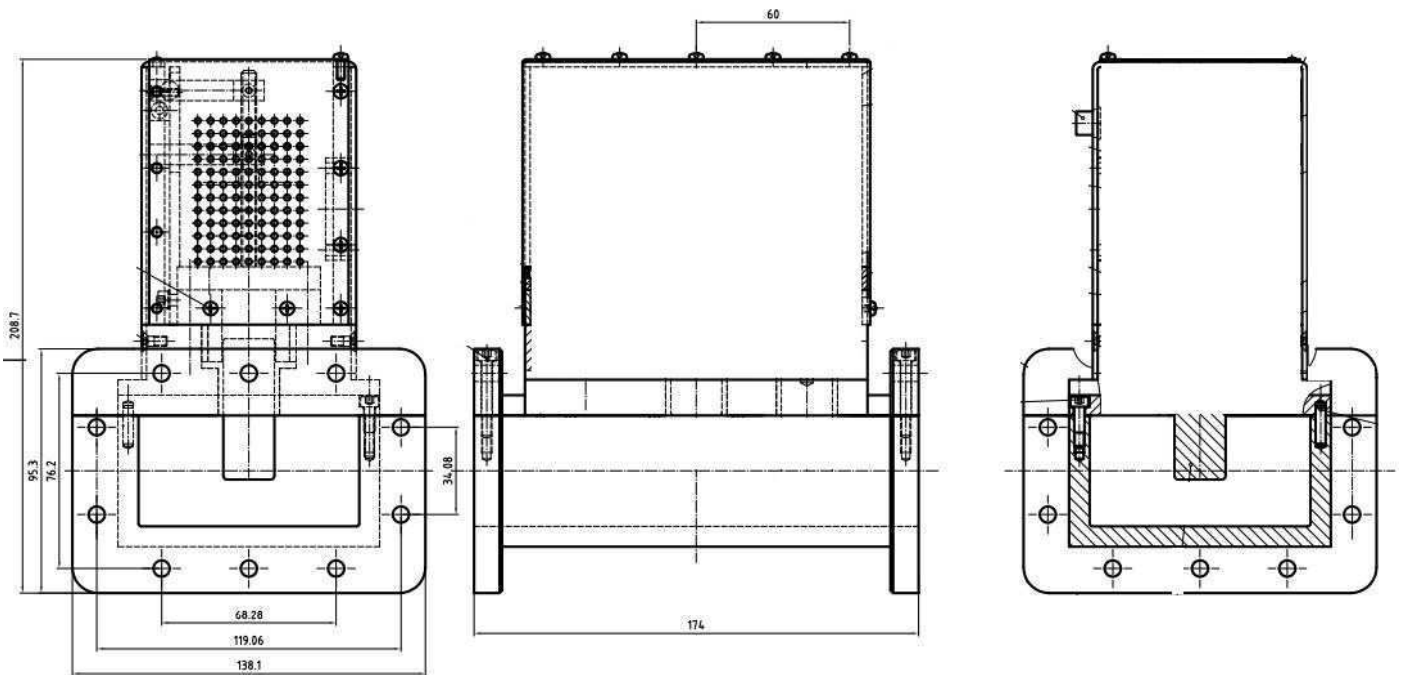
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TRANSITION WAVEGUIDE

WR340COAX7/8SA

Features:

- Standard transition waveguide
- Light weight (Aluminum waveguide)



Specifications:

Material	Aluminum with silver-coloured Chromate conversion coating
Weight	0.5 kg
Waveguide	WR340/R26/WG9A
Flange	PDR26
Output connector	EIA 7/8"
Frequency	2.45 GHz $\pm$ 25 MHz
Impedance of connector	50 Ohm
Allowed power	$\leq$ 2 kW under matched load conditions
VSWR	$\leq$ 1.05



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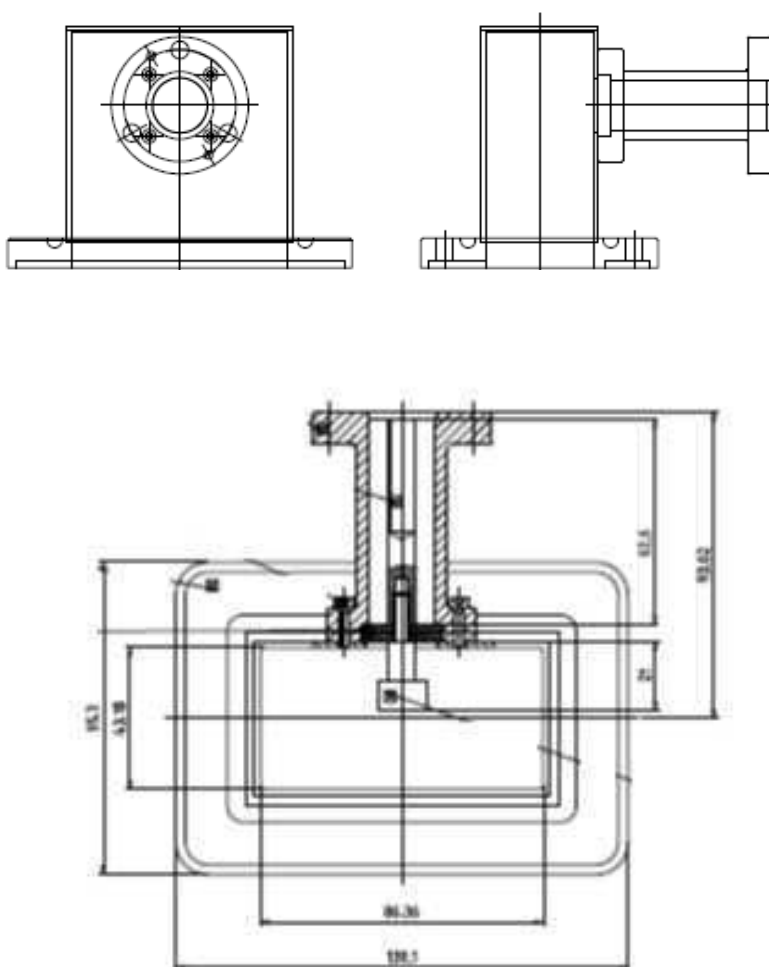
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TRANSITION WAVEGUIDE

WR340COAX7/16MA

Features:

- Transition waveguide for measuring
- Light weight (Aluminum waveguide)



Specifications:

Material	Aluminum with silver-coloured Chromate conversion coating
Weight	0.5 kg
Waveguide	WR340/R26/WG9A
Flange	PDR26
Output connector	EIA 7/16" (female)
Frequency	2.45 GHz $\pm$ 25 MHz
Impedance of connector	50 Ohm
Allowed power	$\leq$ 1.2 kW under matched load conditions
VSWR	$\leq$ 1.05



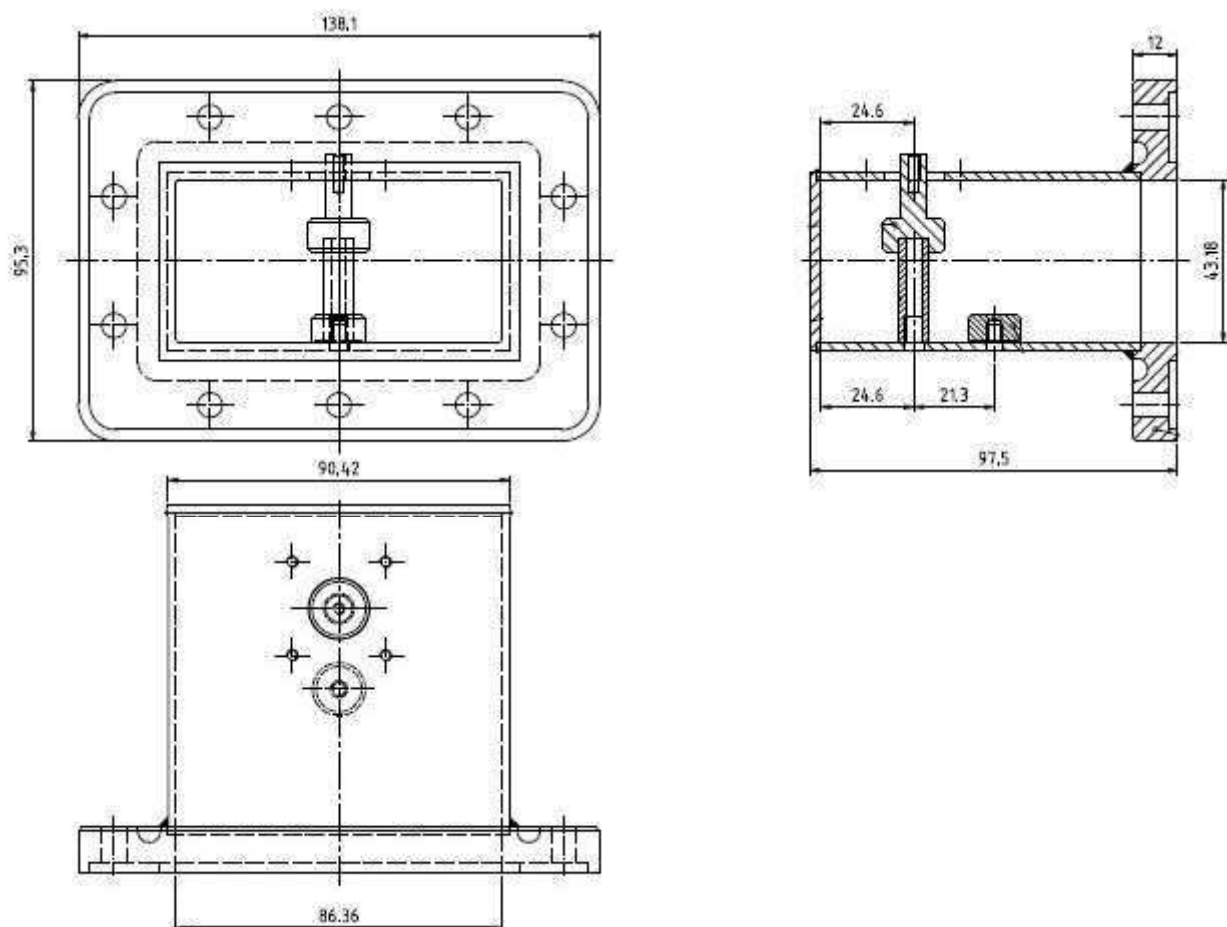
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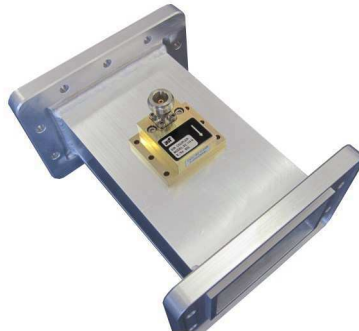
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DUAL - DIRECTIONAL - COUPLER

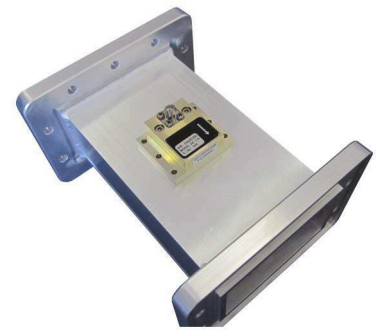
WR340DDC60NA/SA

Features:

- Output connector available with N-type and SMA-type
- Light weight (Aluminum waveguide)



N-type connector



SMA-type connector

Specifications:

Material	Aluminum with silver-coloured Chromate conversion coating
Weight	0.8 kg
Waveguide	WR340/R26/WG9A
Flange	PDR26
Output connector	N-type or SMA-type
Frequency	2.45 GHz $\pm$ 25 MHz
Directivity	$\geq$ 25 dB
Power level	$\leq$ 10 kW
VSWR (N, SMA)	$\leq$ 1.25
Coupling factor	-60 dB $\pm$ 0.5 dB standard -50 dB $\pm$ 0.5 dB available on special order -70 dB $\pm$ 0.5 dB available on special order
Termination	50 Ohm



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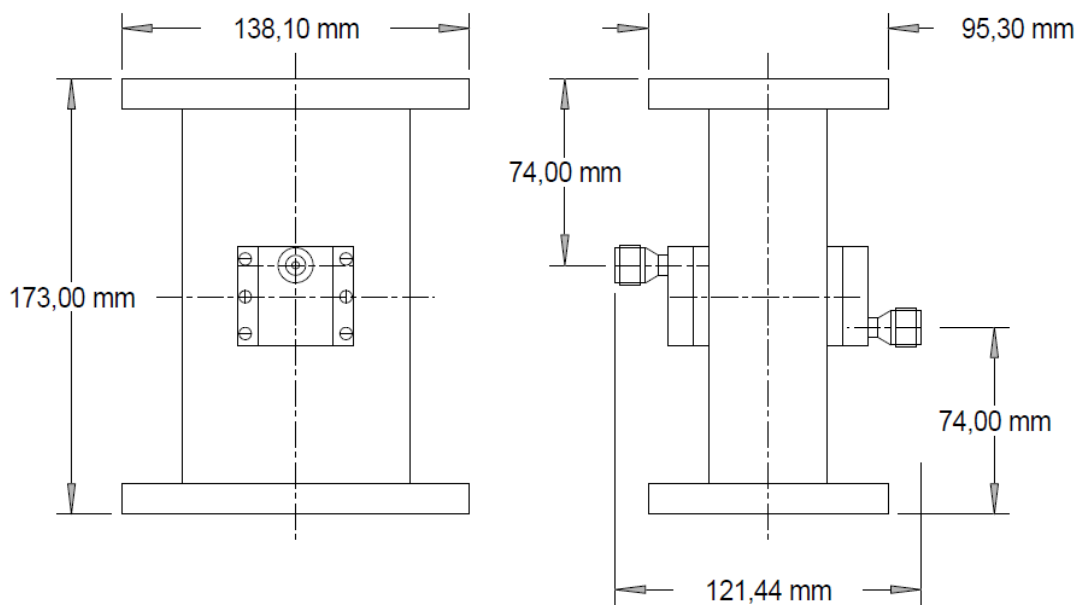
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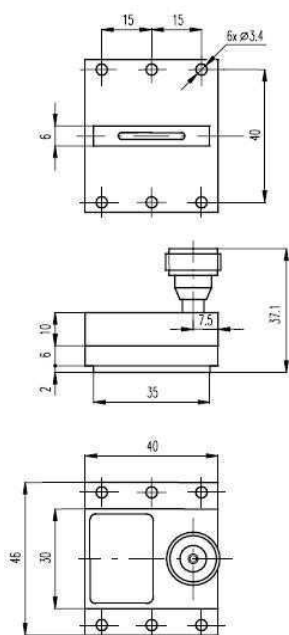
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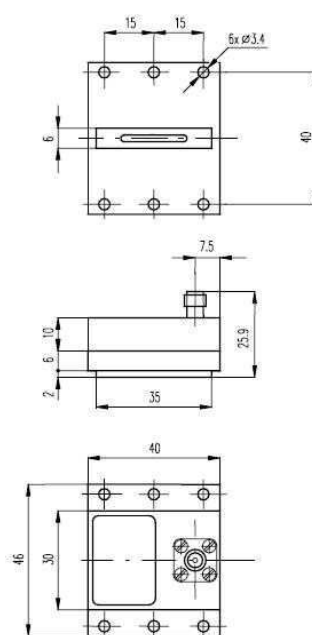
Dimensional Drawings (in mm):



WR340DDC60NA (N-type connector)



N-type connector



SMA-type connector



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E - BEND 90° WR340/R26/WG9A

WR340EB90R100LA/SA

Features:

- Low cost and standard version available
- Light weight (Aluminum waveguide)



Low cost version



Standard version

Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Weight	0.7 kg
Frequency	2.45 GHz $\pm$ 30 MHz
Power level	$\leq$ 20 kW
VSWR	$\leq$ 1.05
Flange	PDR26
Radius	100 mm
Options	Low cost version (welded finish): WR340EB90R100LA Standard version (machine finish): WR340EB90R100SA



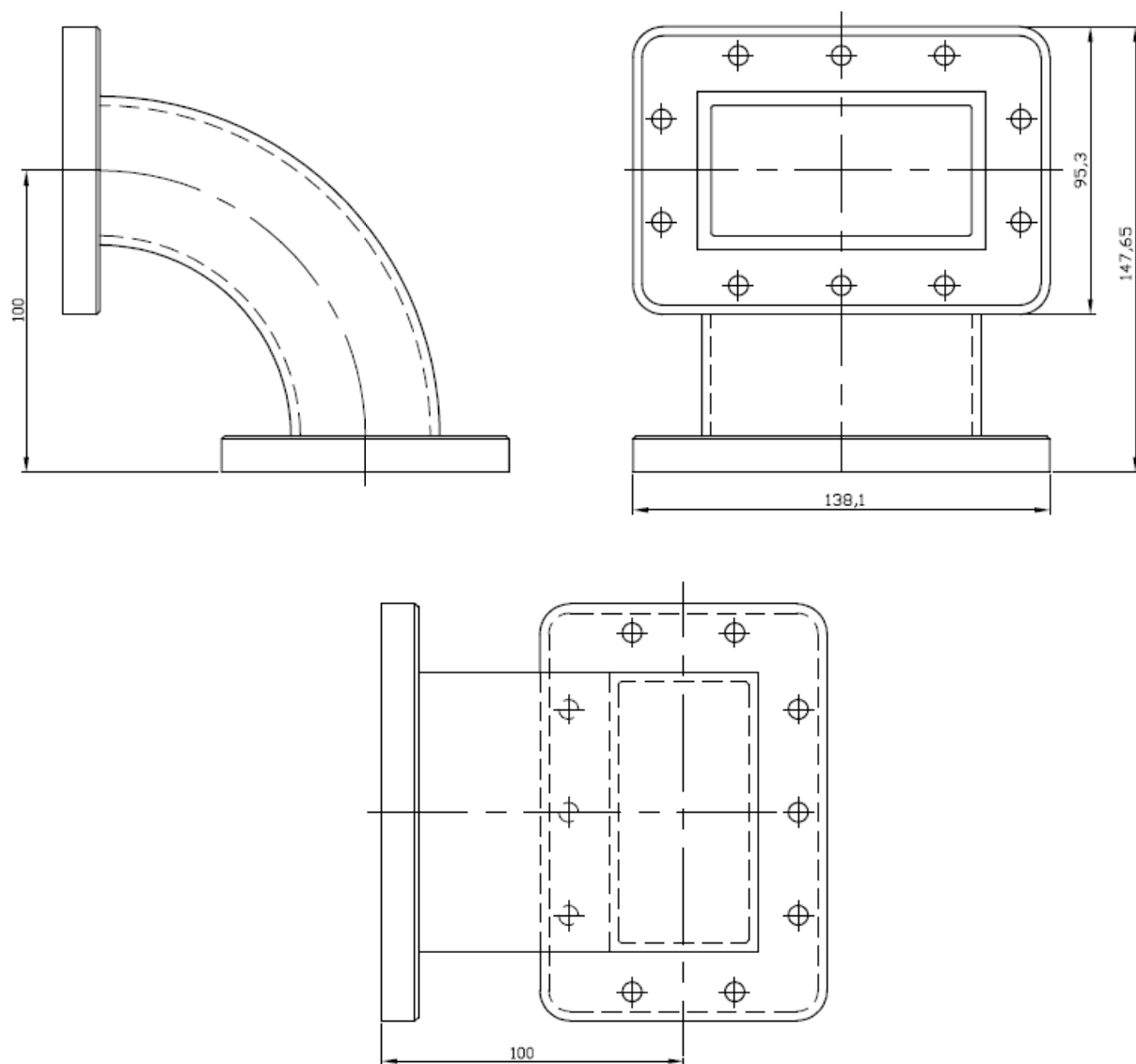
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H - BEND 90° WR340/R26/WG9A

WR340HB90R150LA/SA

Features:

- Low cost and standard version available
- Light weight (Aluminum waveguide)



Low cost version



Standard version

Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Weight	0.8 kg
Frequency	2.45 GHz $\pm$ 30 MHz
Power level	$\leq$ 20 kW
VSWR	$\leq$ 1.05
Flange	PDR26
Radius	150 mm
Options	Low cost version (welded finish): WR340HB90R150LA Standard version (machine finish): WR340HB90R150SA



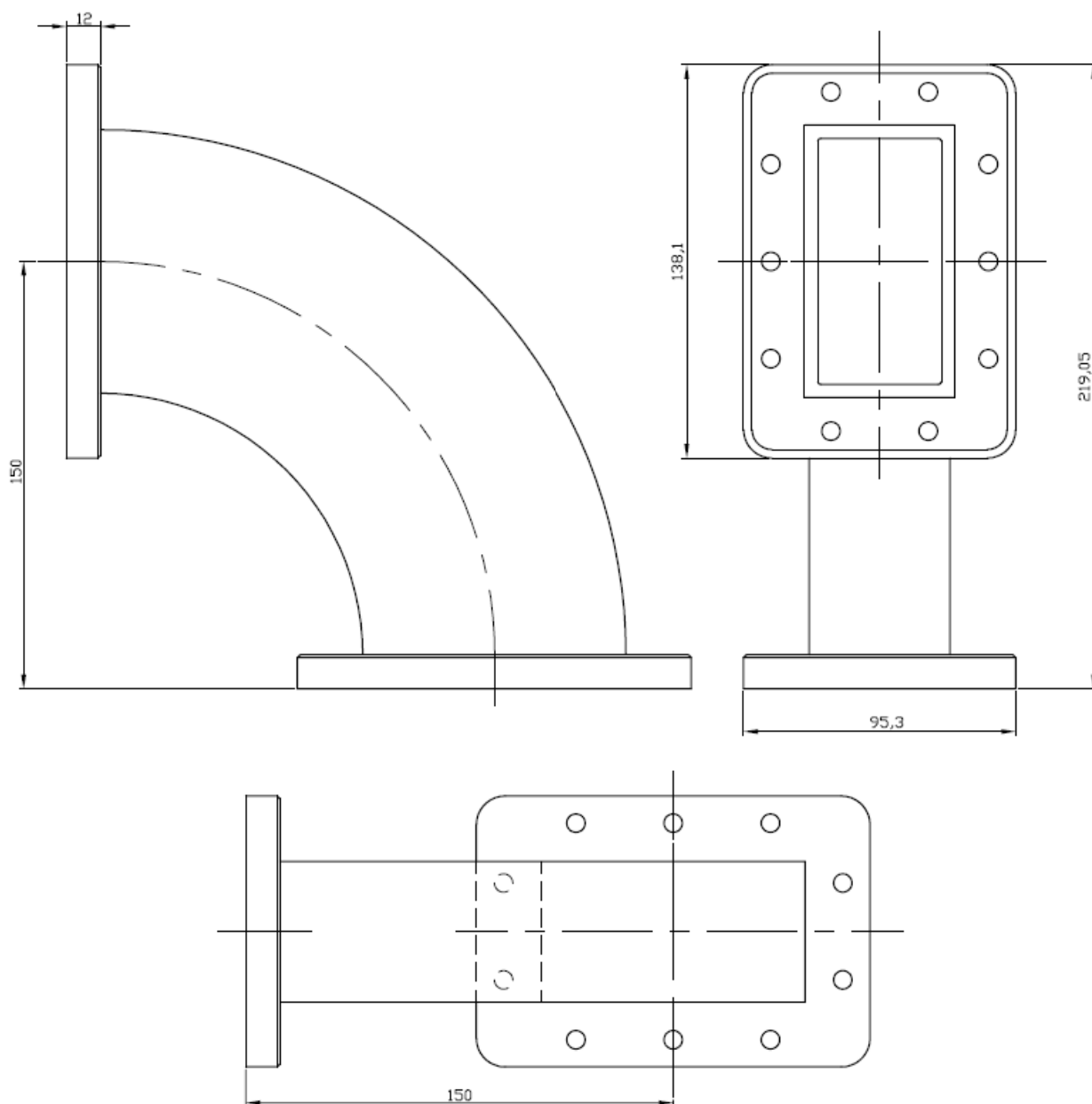
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ISOLATOR 3 KW COMPACT - VERSION

WR340ISOLATOR003CA

Features:

- 3 kW forward or reflected power
- Light weight (Aluminum waveguide)



Specifications:

Frequency	2.45 GHz $\pm$ 25 MHz
Isolation	$\geq$ 23 dB
Insertion loss	$\leq$ 0.15 dB
Return loss	$\geq$ 23 dB
Power (forward or reflected)	3 kW cw
Monitor coupling	-60 dB $\pm$ 0.5 dB (@ 40 °C)
RF leakage	< 0.5 mW/cm ² (5 cm distance)
Water temperature	Inlet: +10 °C ... +40 °C Outlet: $\leq$ +50 °C
Storage temperature	-10 °C ... +70 °C
Static water pressure	$\leq$ 600 kPa
Waveguide	WR340/R26/WG9A
Flange	UDR26
Monitor connector	SMA female
Water connection	G 1/4"
Mounting position	Any
Material	Aluminum alloy with yellow chromated finish
Weight	4.3 kg



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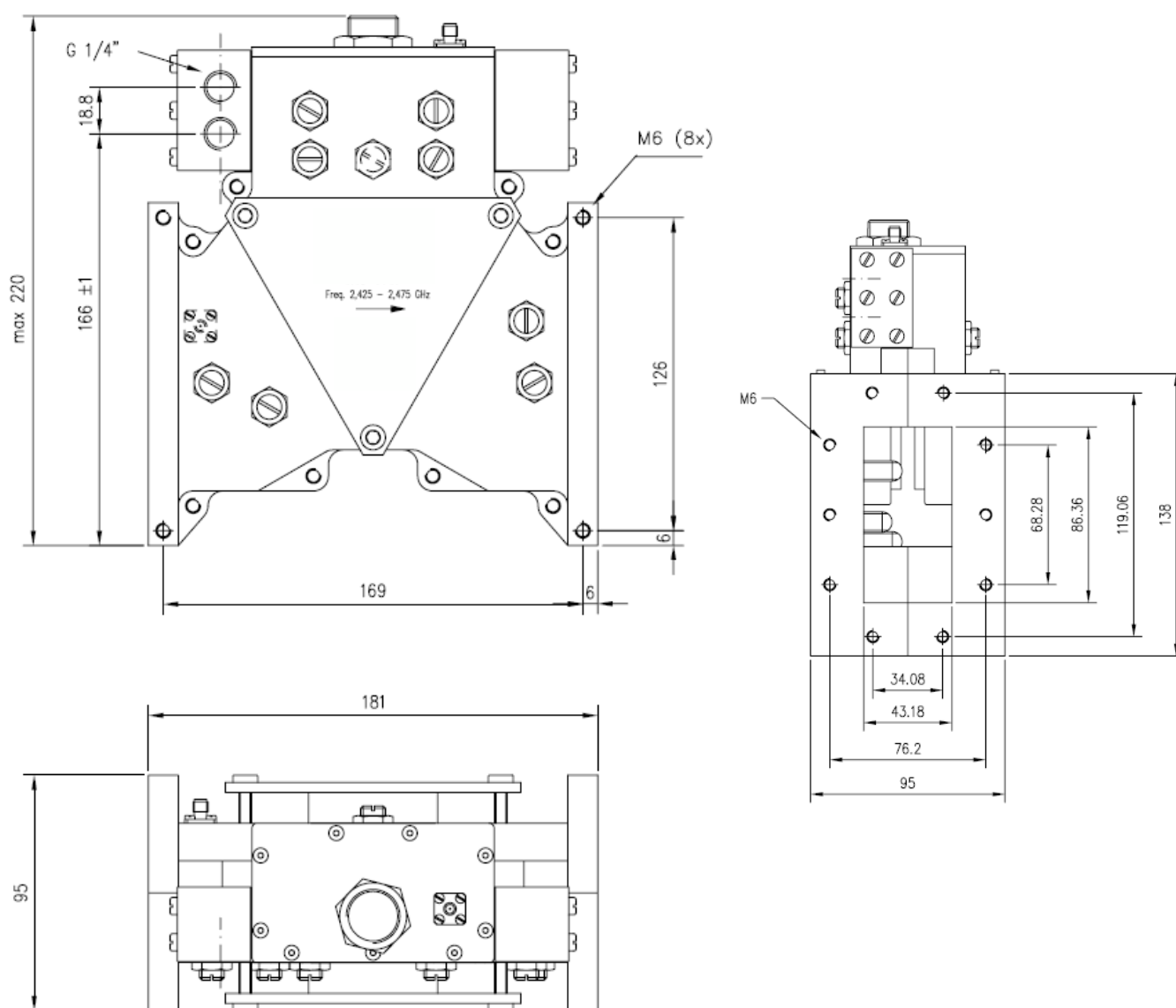
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ISOLATOR 6 KW STANDARD

WR340ISOLATOR006SA

Features:

- 6 kW forward or reflected power
- Light weight (Aluminum waveguide)



Specifications:

Frequency	2.45 GHz $\pm$ 25 MHz
Isolation	$\geq$ 23 dB
Insertion loss	$\leq$ 0.15 dB
Return loss	$\geq$ 23 dB
Power (forward or reflected)	6 kW cw
Monitor coupling	-66.5 dB $\pm$ 0.5 dB (@ 40 °C)
RF leakage	< 0.5 mW/cm ² (5 cm distance)
Water temperature	Inlet: +10 °C ... +40 °C Outlet: $\leq$ +50 °C
Storage temperature	-10 °C ... +70 °C
Static water pressure	$\leq$ 600 kPa
Waveguide	WR340/R26/WG9A
Flange	UDR26
Monitor connector	N type female
Water connection	G 3/8"
Mounting position	Any
Material	Aluminum alloy with yellow chromated finish
Weight	4.7 kg



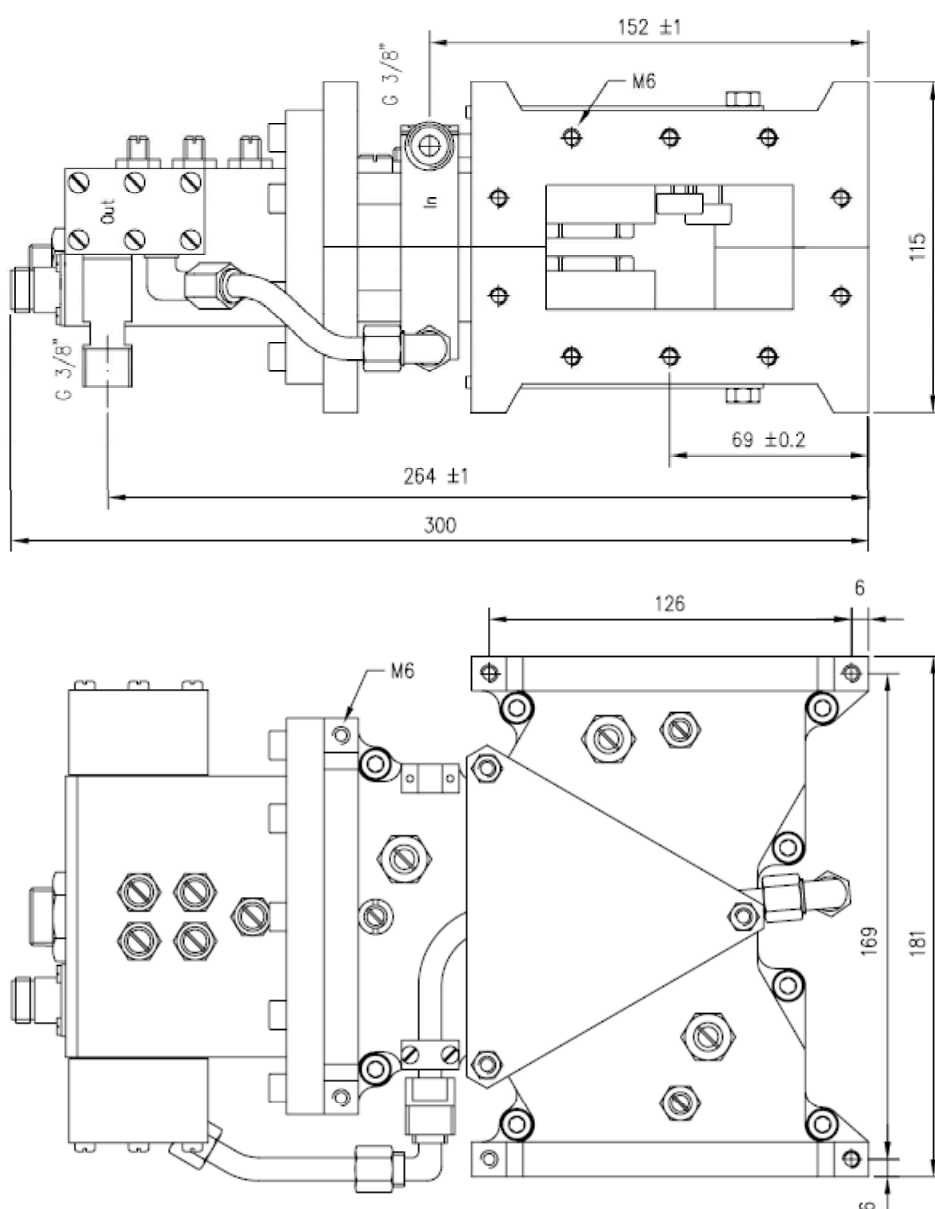
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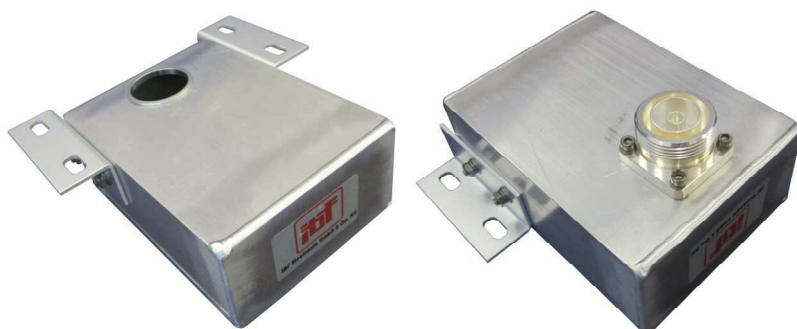
UNIVERSAL MAGNETRON LAUNCHER

W/ 7/16" FEMALE OUTPUT

WR340LAUNCH7/16FA

Features:

- Suitable for magnetrons with power up to 3 kW
- Light weight (Aluminium waveguide)



Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Weight	0.9 kg
Waveguide	WR340/R26/WG9A
Flange	PDR26
Suitable magnetrons	300 W - 3 kW
Frequency	2.45 GHz
Output	7/16" female output



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UNIVERSAL MAGNETRON LAUNCHER

W/ HOLDER

WR340LAUNCHERFA

Features:

- Suitable for magnetrons with power up to 3 kW
- Light weight (Aluminium waveguide)



Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Weight	0.9 kg
Waveguide	WR340/R26/WG9A
Flange	PDR26
Suitable magnetrons	300 W - 3 kW
Frequency	2.45 GHz
Holder	With holder for filament transformer
Options	Available with ARC-detector mount



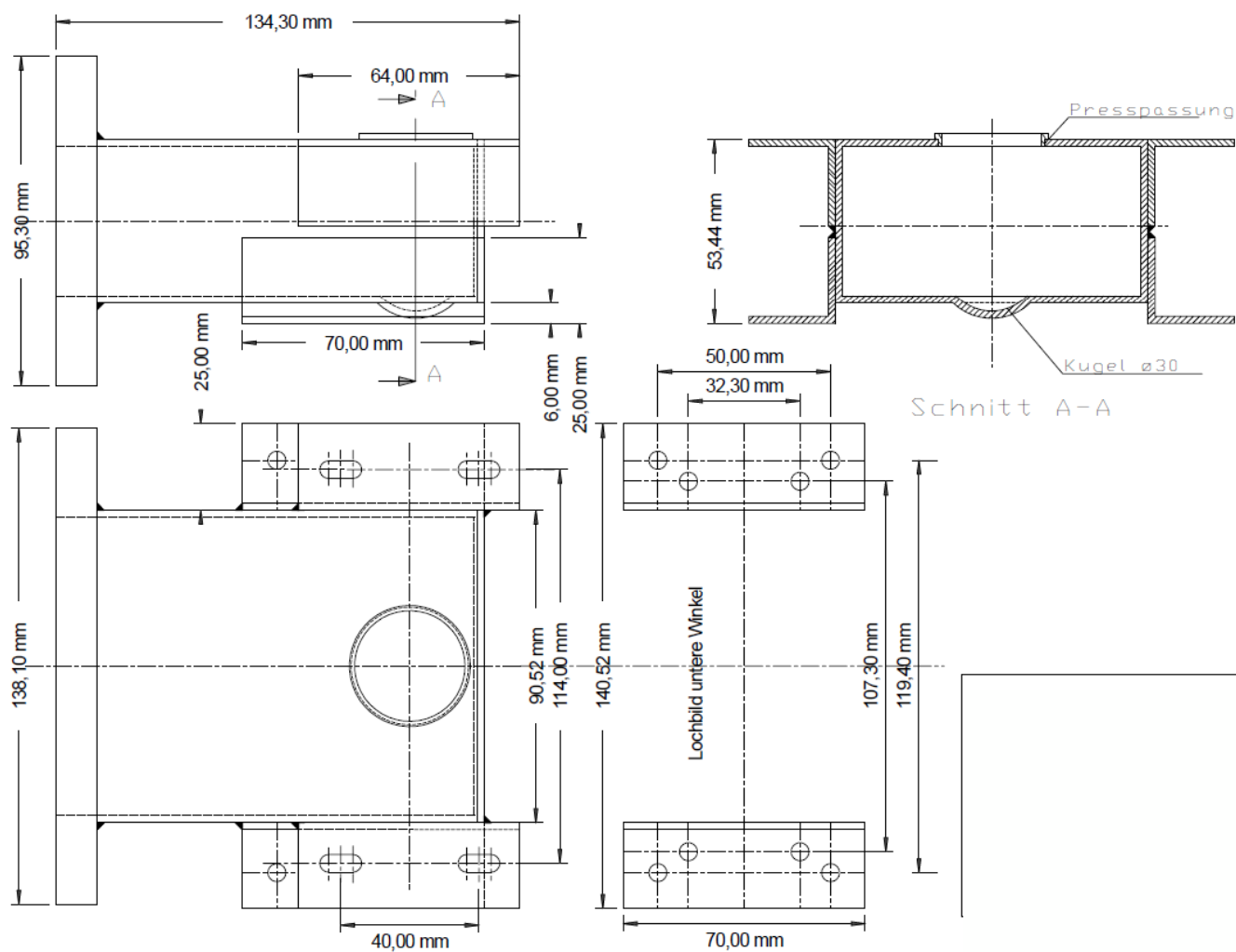
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EH - TUNER

WR159PEHTUNA(L)C150A

Features:

- With precision adjustment
- With digital position indicator
- With contact (WR340PEHTUNAC150A) or without contact (WR340PEHTUNALC150A)
- Light weight (Aluminum waveguide)



Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Frequency	2.45 GHz $\pm$ 50 MHz
Power level	$\leq$ 10 kW
Waveguide	WR340/R26/WG9A
Flange	UDR26 (connection block) PDR26 (slides)
Length	150 mm
Cooling	Air-cooled
Tuning distance	> 180 mm (> 1 λ)
Resolution	0.1 mm
Weight	4.9 kg



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3 - STUB - TUNER

WR340PTUN3AC218A

Features:

- With digital position indicator
- Light weight (Aluminum waveguide)



Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Weight	5 kg
Frequency	2.45 GHz $\pm$ 50 MHz
Power level	$\leq$ 6 kW
Waveguide	WR340/R26/WG9A
Flange	UDR26
Length	218 mm
Cooling	Air-cooled
VSWR	$\leq$ 10



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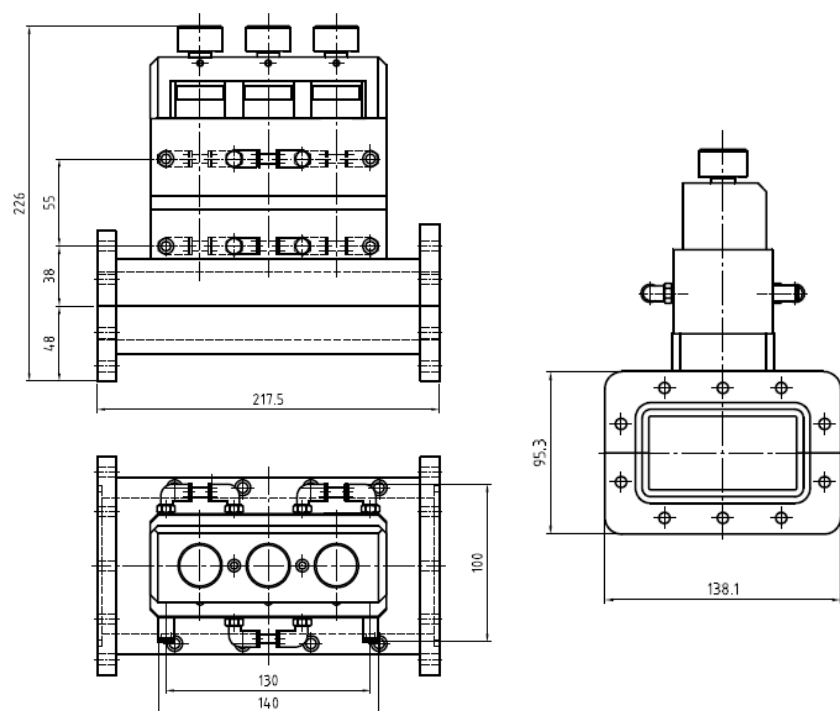
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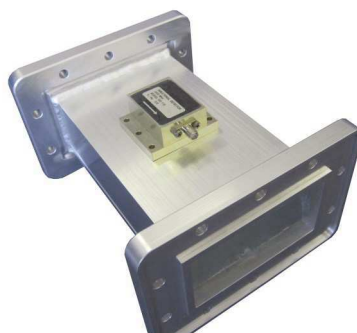
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SINGLE - DIRECTIONAL - DETECTOR

WR340SDD60SSA/FSA

Features:

- Standard and fast temperature-stable version available
- Light weight (Aluminum waveguide)



Standard version



Fast version

Specifications:

Material	Aluminum with silver-coloured Chromate conversion coating
Weight	1 kg
Waveguide	WR340/R26/WG9A
Flange	PDR26
Output connector	SMA-type
Frequency	2.45 GHz $\pm$ 25 MHz
Directivity	$\geq$ 25 dB
Power level	$\leq$ 10 kW
VSWR	$\leq$ 1.25
Detector	Zero-bias Schottky diode detector (standard): WR340DDD60SSA Tunnel diode detector (fast): WR340DDD60FSA
Video resistance	5000 Ohm 120 Ohm



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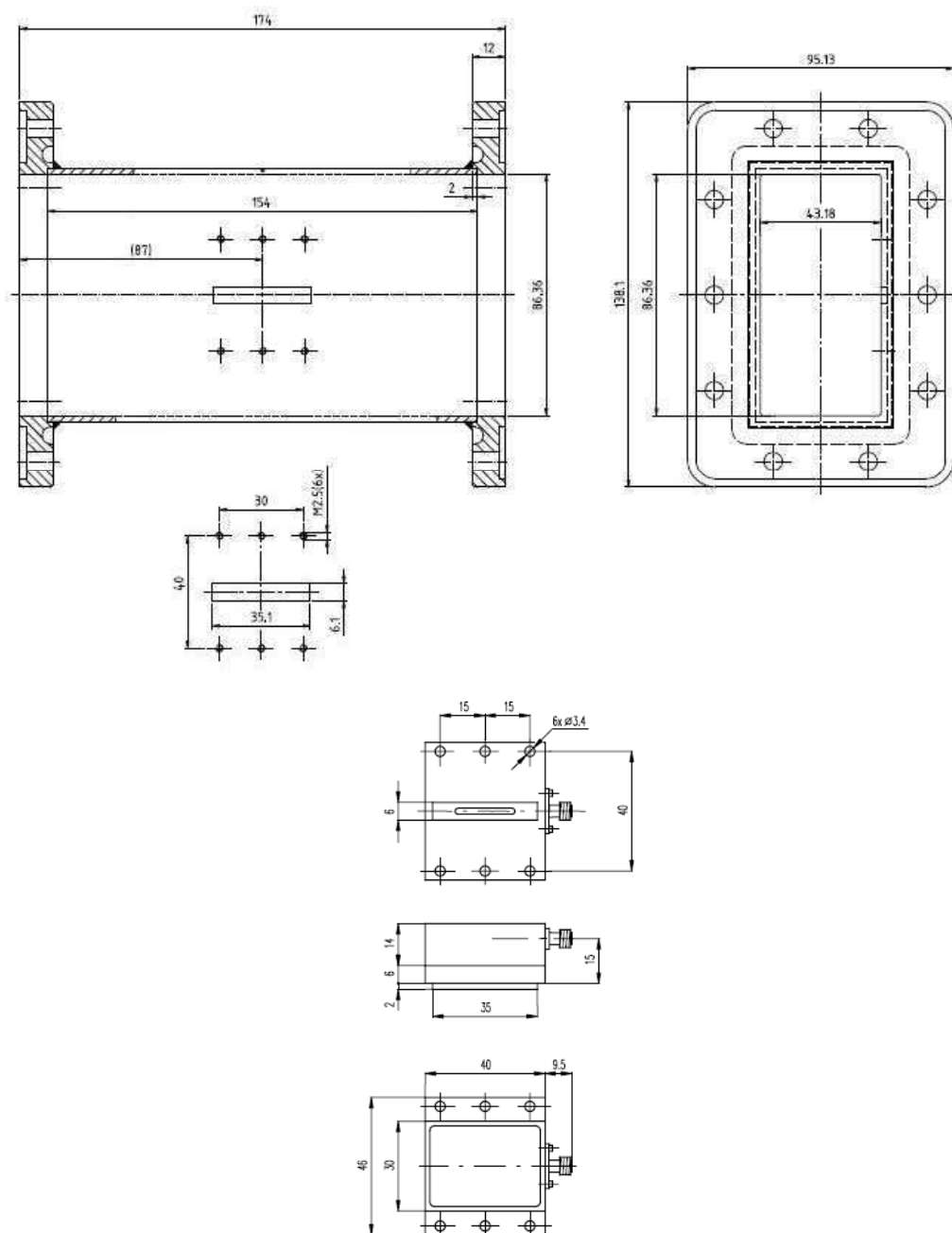
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SLIDING SHORT

WR340SHORTDCLA

Features:

- With precision adjustment
- With position indicator
- Light weight (Aluminum waveguide)
- Without contact



Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Weight	1 kg
Frequency	2.45 GHz $\pm$ 25 MHz
Power level	$\leq$ 10 kW
Waveguide	WR340/R26/WG9A
Flange	PDR26
Adjustment range	180 mm



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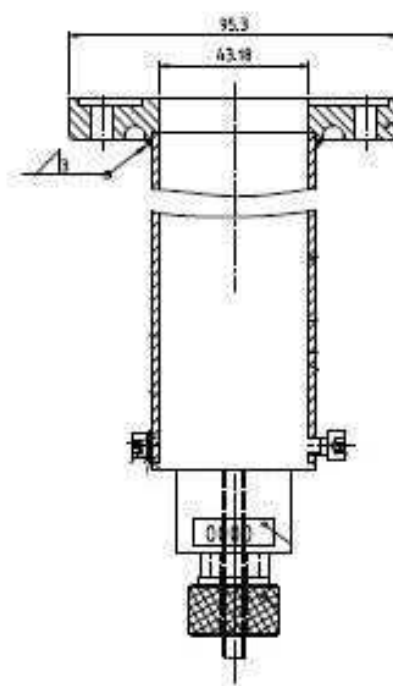
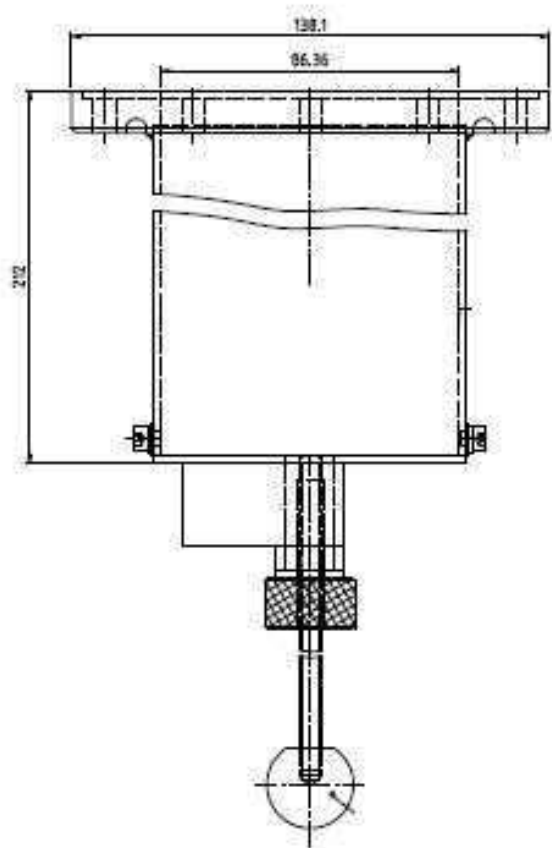
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POWER - SPLITTER

T - VERSION E - PLANE

WR340TESPLITTERLA/SA

Features:

- Low cost and standard version available
- Light weight (Aluminum waveguide)

Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Weight	2 kg
Frequency	2.45 GHz $\pm$ 50 MHz
Power level	$\leq$ 10 kW
VSWR	$\leq$ 1.1 (at matched loads)
Waveguide	WR340/R26/WG9A
Flange	PDR26
Balance	$\pm$ 0.1 dB (at matched loads)
Insertion loss	$\leq$ 0.1 dB
Options	Low cost version (welded finish): WR340TESPLITTERLA Standard version (machine finish): WR340TESPLITTERSA



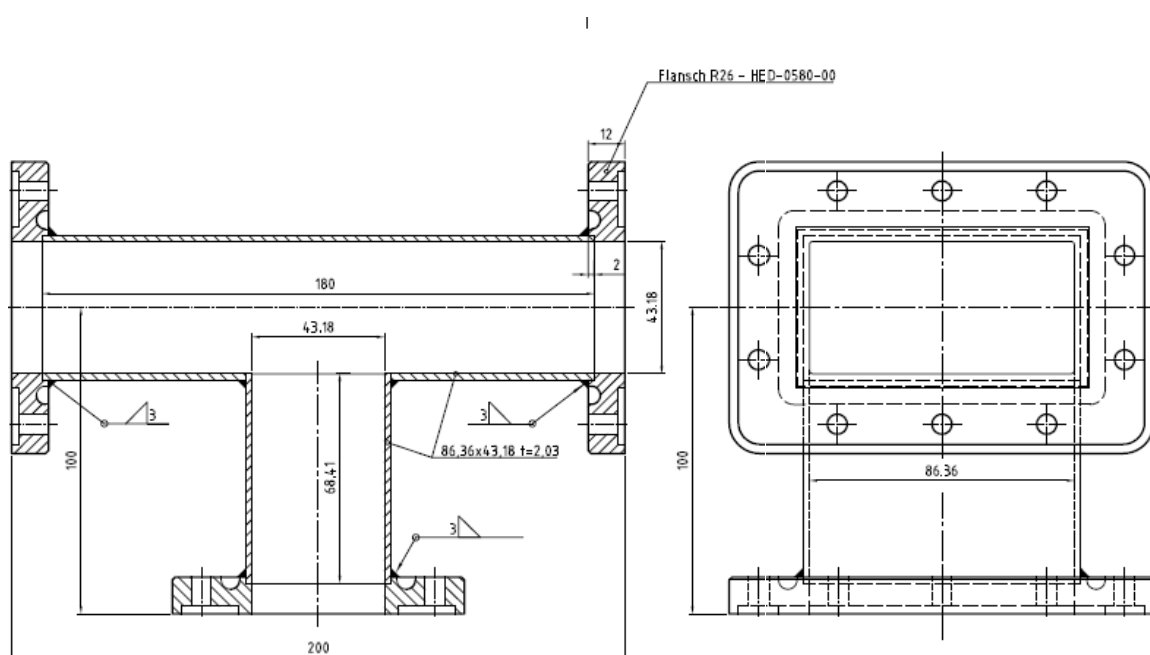
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POWER - SPLITTER

T - VERSION H - PLANE

WR340THSPLITTERLA/SA

Features:

- Low cost and standard version available
- Light weight (Aluminum waveguide)



Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Weight	2,1 kg
Frequency	2.45 GHz $\pm$ 50 MHz
Power level	$\leq$ 10 kW
VSWR	$\leq$ 1.1 (at matched loads)
Waveguide	WR340/R26/WG9A
Flange	PDR26
Balance	$\pm$ 0.1 dB (at matched loads)
Insertion loss	$\leq$ 0.1 dB
Options	Low cost version (welded finish): WR340THSPLITTERLA Standard version (machine finish): WR340THSPLITTERSA



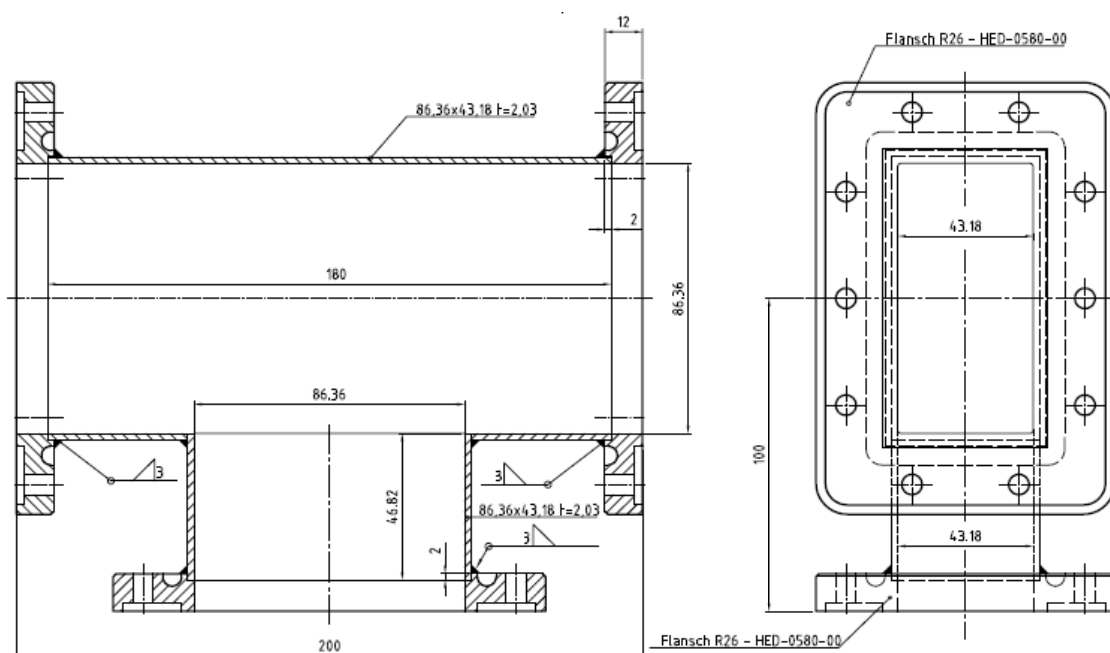
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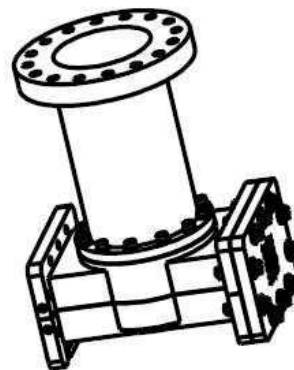
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TRANSITION WAVEGUIDE

WR340TRANS085A

Features:

- Transition waveguide from rectangular waveguide to circular waveguide
- Light weight (Aluminum waveguide)



Specifications:

Material	Aluminum with silver-coloured Chromate conversion coating
Waveguide	Rectangular waveguide WR340/R26/WG9A to circular waveguide 85 mm (inner diameter)
Circular flange	CF-Flange DN100
Frequency	2.45 GHz $\pm$ 25 MHz
Maximum power level	$\leq$ 6 kW
Options	Quartz window, integrated in circular flange Water-cooled version available for higher power levels



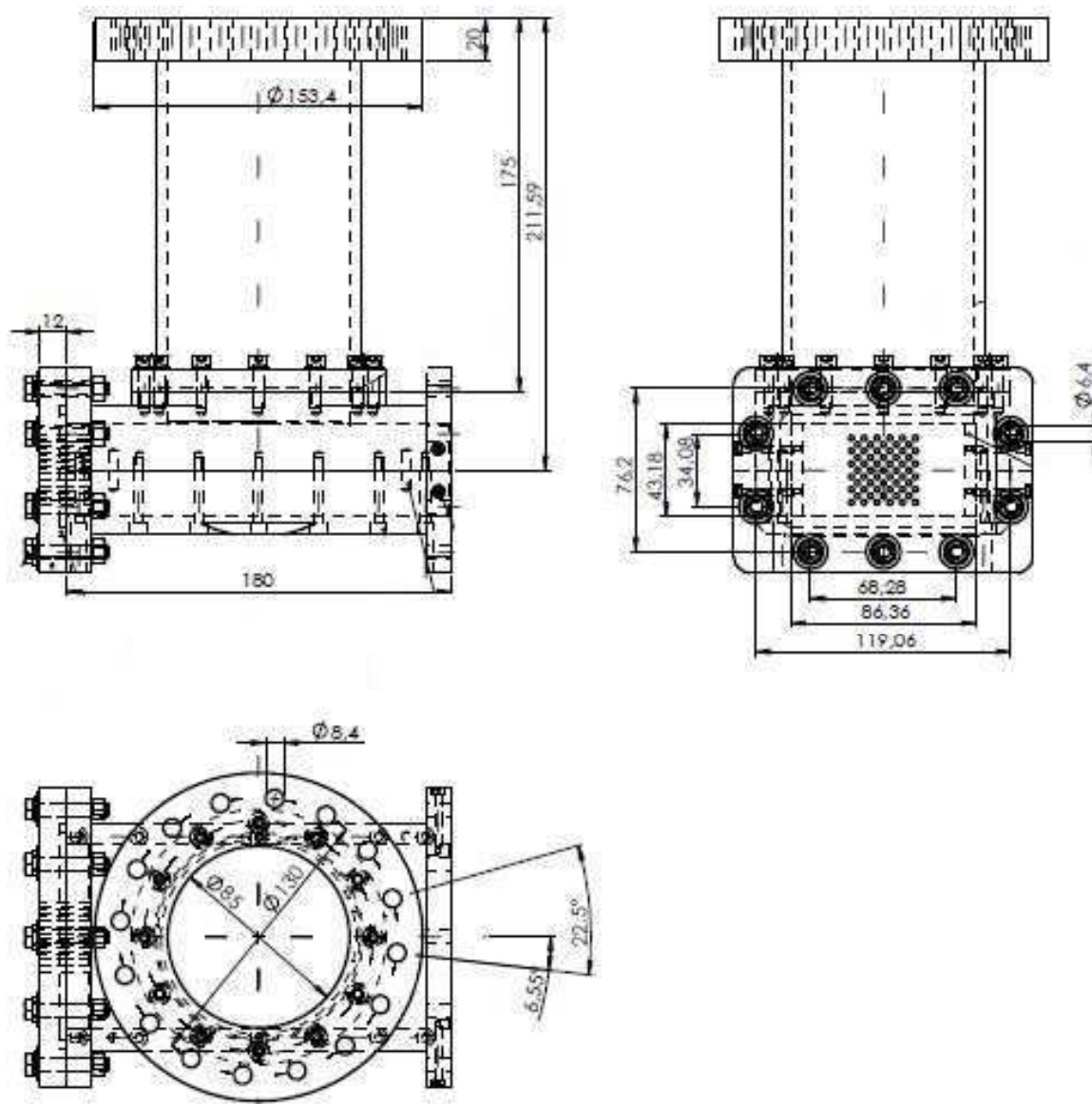
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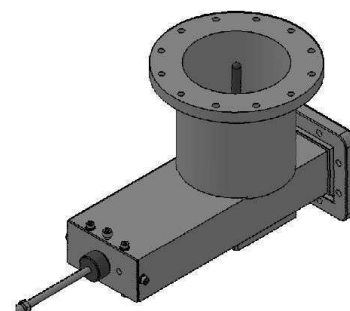
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TRANSITION WAVEGUIDE

WR340TRANS100A

Features:

- Transition waveguide from rectangular waveguide to circular waveguide
- Light weight (Aluminum waveguide)



Specifications:

Material	Aluminum with silver-coloured Chromate conversion coating
Waveguide	Rectangular waveguide WR340/R26/WG9A to circular waveguide 100 mm (inner diameter)
Circular flange	Special flange LK143
Frequency	2.45 GHz $\pm$ 25 MHz
Maximum power level	$\leq$ 6 kW
Weight	2.1 kg
Load matching	Via sliding short plugger and coaxial antenna
Tuning range	> 100 mm (> 1/2 Lambda)
Options	Other flanges available on request



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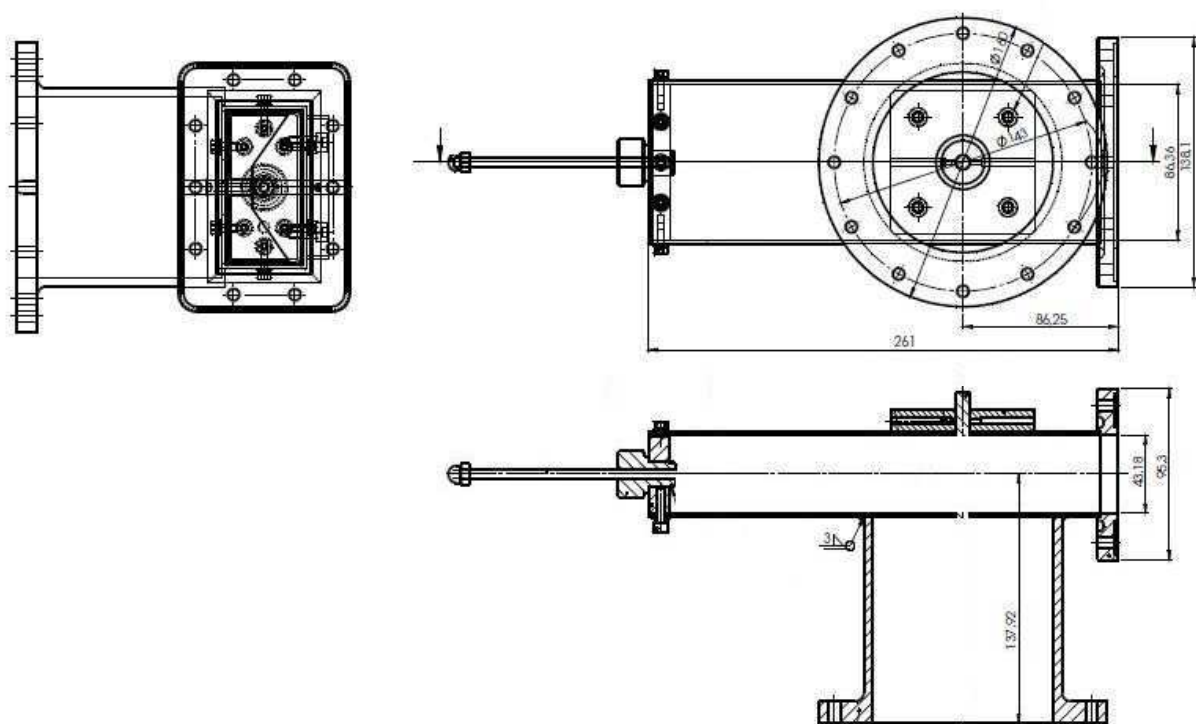
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GAS BARRIER WINDOW

WR340WINDOWQC03A

Features:

- Quartz glass window
- Light weight (Aluminum flange)
- Impedance matched (calibrated)



Specifications:

Material	Aluminum with silver-coloured Chromate conversion coating
Weight	0.5 kg
Flange	PDR26
Quartz glass thickness	3 mm
Vacuum seals	Viton
Power level	≤ 10 kW
Frequency	2.45 GHz $\pm$ 25 MHz
VSWR	≤ 1.5
Options	Available as non-calibrated version (WR340WINDOWQ03A)



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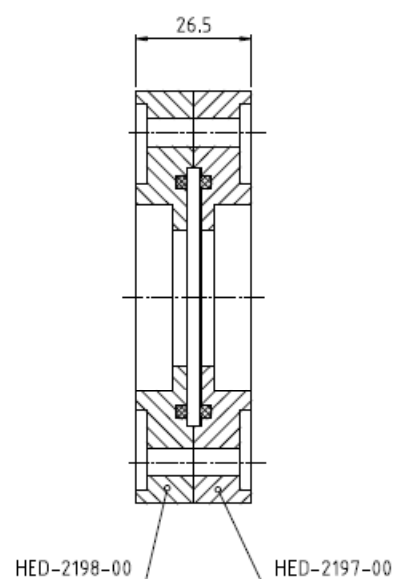
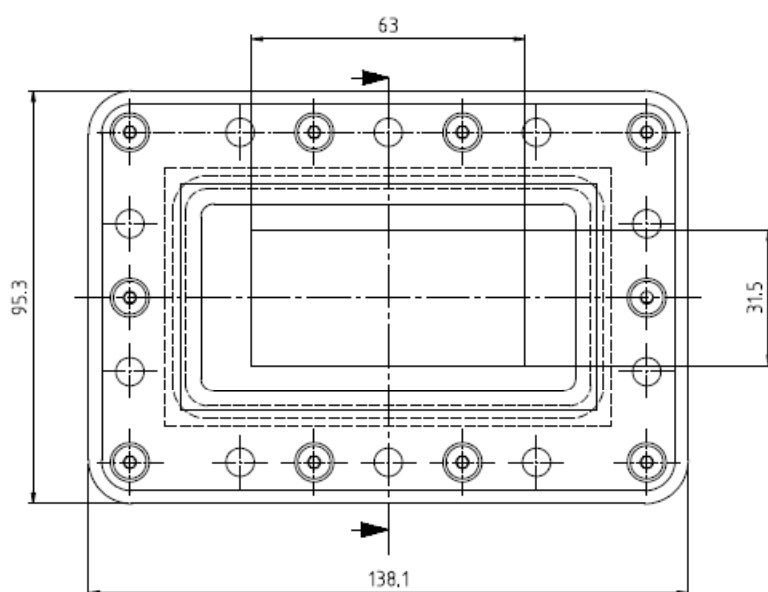
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GAS BARRIER WINDOW

WR340WINDOWQC10A

Features:

- Quartz glass window
- Light weight (Aluminum flange)
- Impedance matched (calibrated)



Specifications:

Material	Aluminum with silver-coloured Chromate conversion coating
Weight	0.8 kg
Flange	PDR26
Quartz glass thickness	10 mm
Vacuum seals	Viton
Power level	≤ 10 kW
Frequency	2.45 GHz $\pm$ 25 MHz
VSWR	≤ 1.5
Options	Available as non-calibrated version (impedance matched) (WR340WINDOWQ10A)



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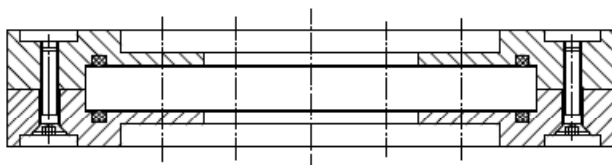
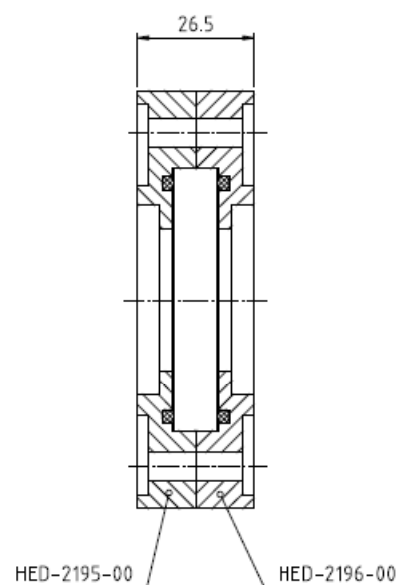
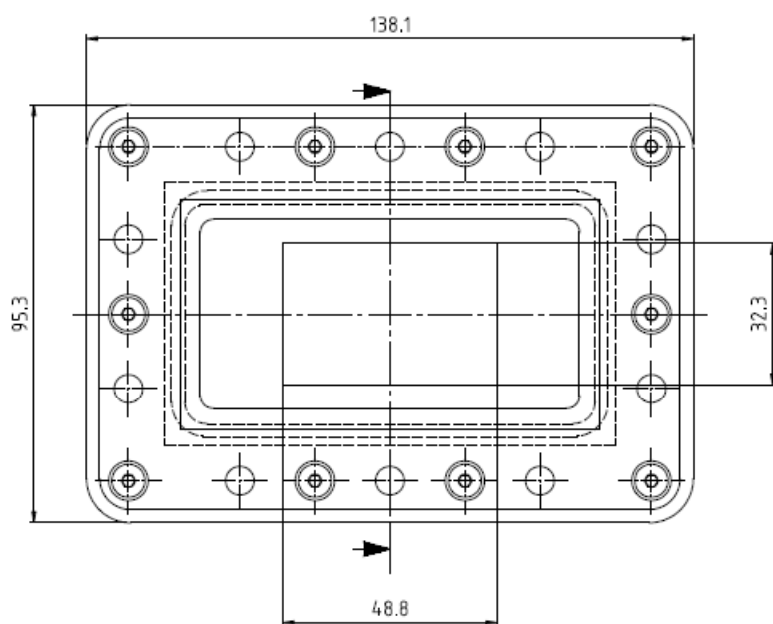
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WATER LOAD 6 KW

WR340WLOAD006SA

Features:

- 6 kW power
- Light weight (Aluminum waveguide)

Specifications:

Frequency	2.45 GHz $\pm$ 25 MHz
Return loss	$\geq$ 23 dB
Power	6 kW cw
Monitor coupling	-66.5 dB $\pm$ 1 dB (@ 40 °C)
RF leakage	< 0.5 mW/cm ² (5 cm distance)
Water temperature	Inlet: +10 °C ... +40 °C Outlet: $\leq$ +50 °C
Storage temperature	-10 °C ... +70 °C
Static water pressure	$\leq$ 600 kPa
Waveguide	WR340/R26/WG9A
Flange	PDR26
Monitor connector	N type female
Water connection	G 3/8"
Mounting position	any
Material	Aluminum alloy with clear finish
Weight	1.7 kg



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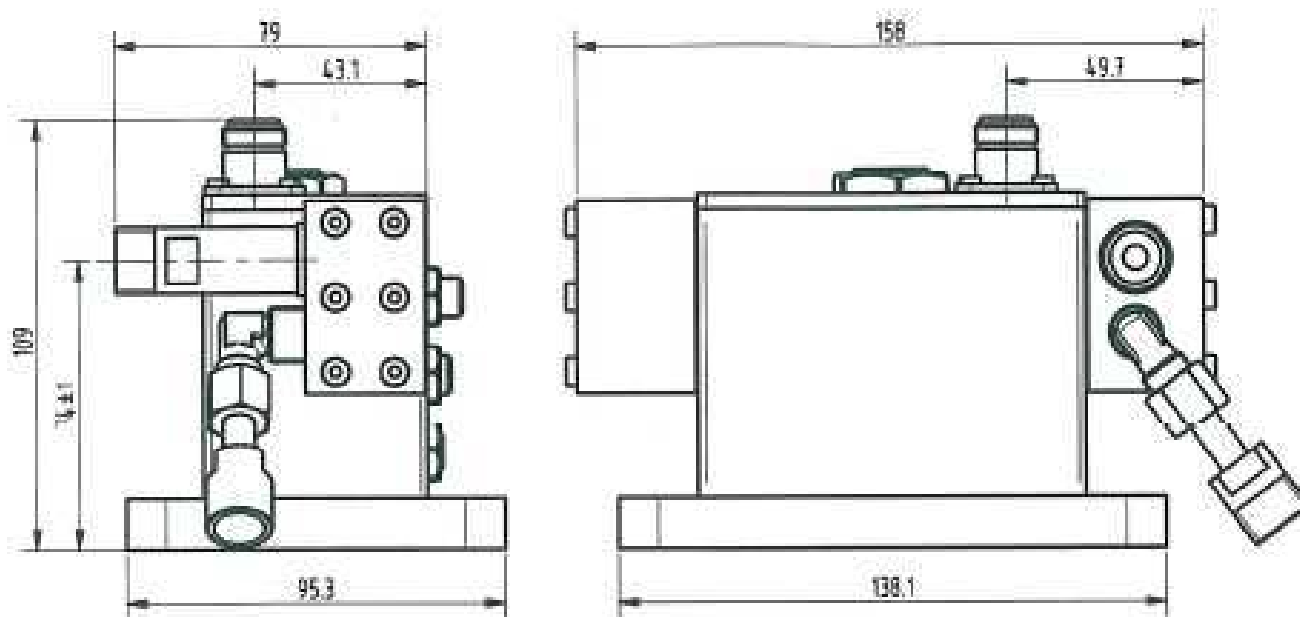
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Dimensional Drawings (in mm):



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DIRECTIONAL DETECTOR WR284/R32/WG10 FAST IDD121

Features:

- Small housing fast temperature-stable directional detector for rectangular waveguide WR284/R32/WG10 with SMA-connector
- Tunnel diode detector
- For 2.45 GHz industrial applications
- Reversing the coupler causes it to sample the wave propagating in opposite direction
- Low video resistance for fast pulse rise/fall times



Specifications:

Frequency range	2.45 GHz $\pm$ 25 MHz
Directivity	> 25 dB
Statistical spread of output voltage	$\pm$ 1 dB (3- σ deviation)
Output voltage polarity	Negative
Output voltage temp. variation (5 to 65 °C)	< 0.5 dB
Video resistance (typ)	120 Ω
Output DC connector	SMA-F
Waveguide of destination	WR284/R32/WG10



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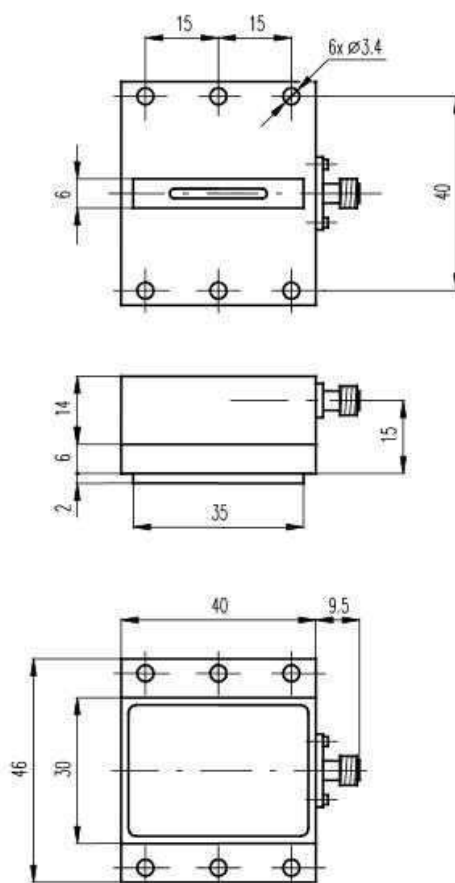
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Dimensional Drawings (in mm):



Typical Transfer Characteristic:

P (W)	V _{dc} (mV)
850	10
1400	20
2800	50
4300	80
5300	100
8000	130



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TRANSITION WAVEGUIDE

WR284COAX7/16MA

Features:

- Transition waveguide for measuring
- Light weight (Aluminum waveguide)



Specifications:

Material	Aluminum with silver-coloured Chromate conversion coating
Weight	0.5 kg
Waveguide	WR284/R32/WG10
Flange	PDR32
Output connector	EIA 7/16"
Frequency	2.45 GHz $\pm$ 25 MHz
Impedance of connector	50 Ohm
Allowed power	$\leq$ 1.2 kW under matched load conditions
VSWR	$\leq$ 1.05



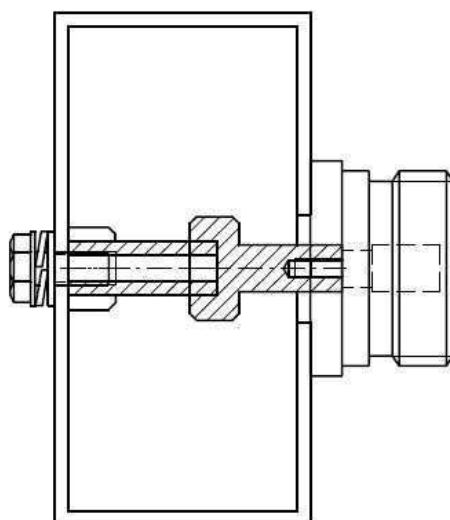
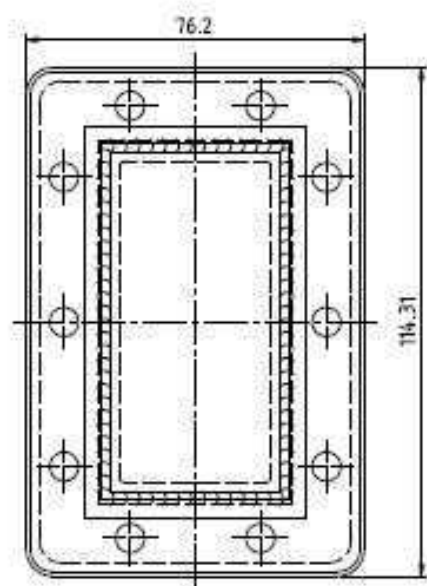
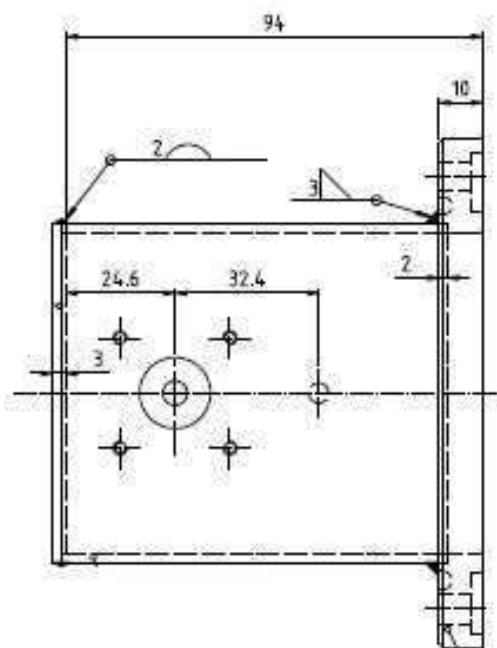
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TRANSITION WAVEGUIDE

WR284COAXNMA

Features:

- Transition waveguide WR284/R32/WG10 to N-type connector for measuring
- Light weight (Aluminum waveguide)
- Also usable as transition waveguide WR284/R32/WG10 to 7/16" female (without adapter)



Specifications:

Material	Aluminum with silver-coloured Chromate conversion coating
Weight	0.57 kg
Waveguide	WR284/R32/WG10
Flange	PDR32
Output connector	N-type connector (female)
Frequency	2.45 GHz $\pm$ 25 MHz
Impedance of connector	50 Ohm
Allowed power	$\leq$ 500 W under matched load conditions
VSWR	$\leq$ 1.05



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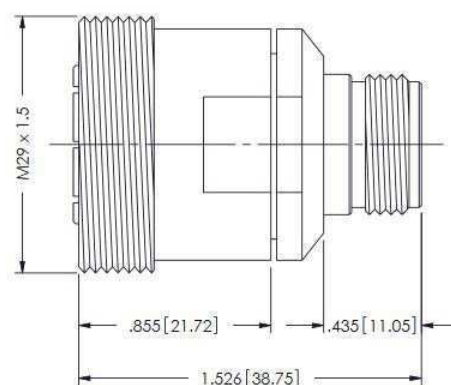
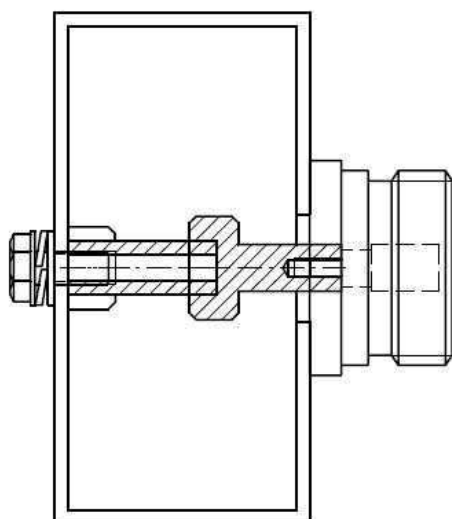
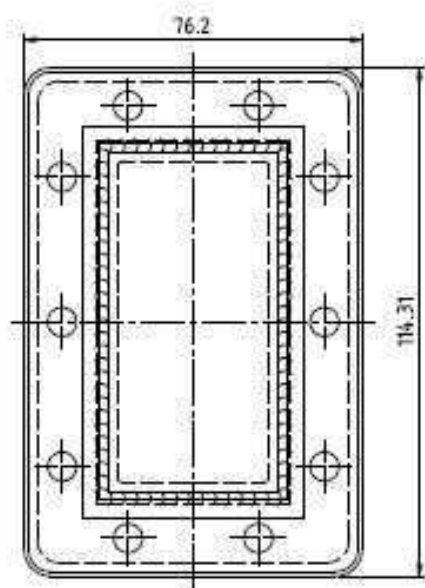
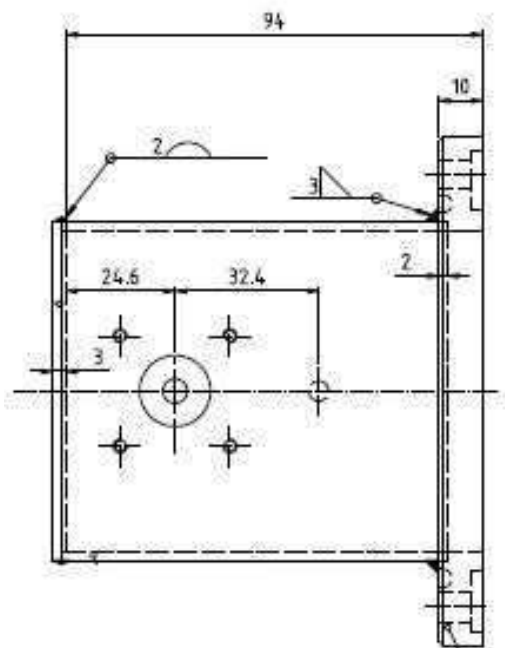
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E - BEND 90° WR284/R32/WG10

WR284EB90R100LA/SA

Features:

- Low cost and standard version available
- Light weight (Aluminum waveguide)



Standard version

Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Frequency	2.45 GHz $\pm$ 30 MHz
Power level	$\leq$ 10 kW
VSWR	$\leq$ 1.05
Flange	PDR32
Radius	100 mm
Options	Low cost version (welded finish): WR284EB90R100LA Standard version (machine finish): WR284EB90R100SA



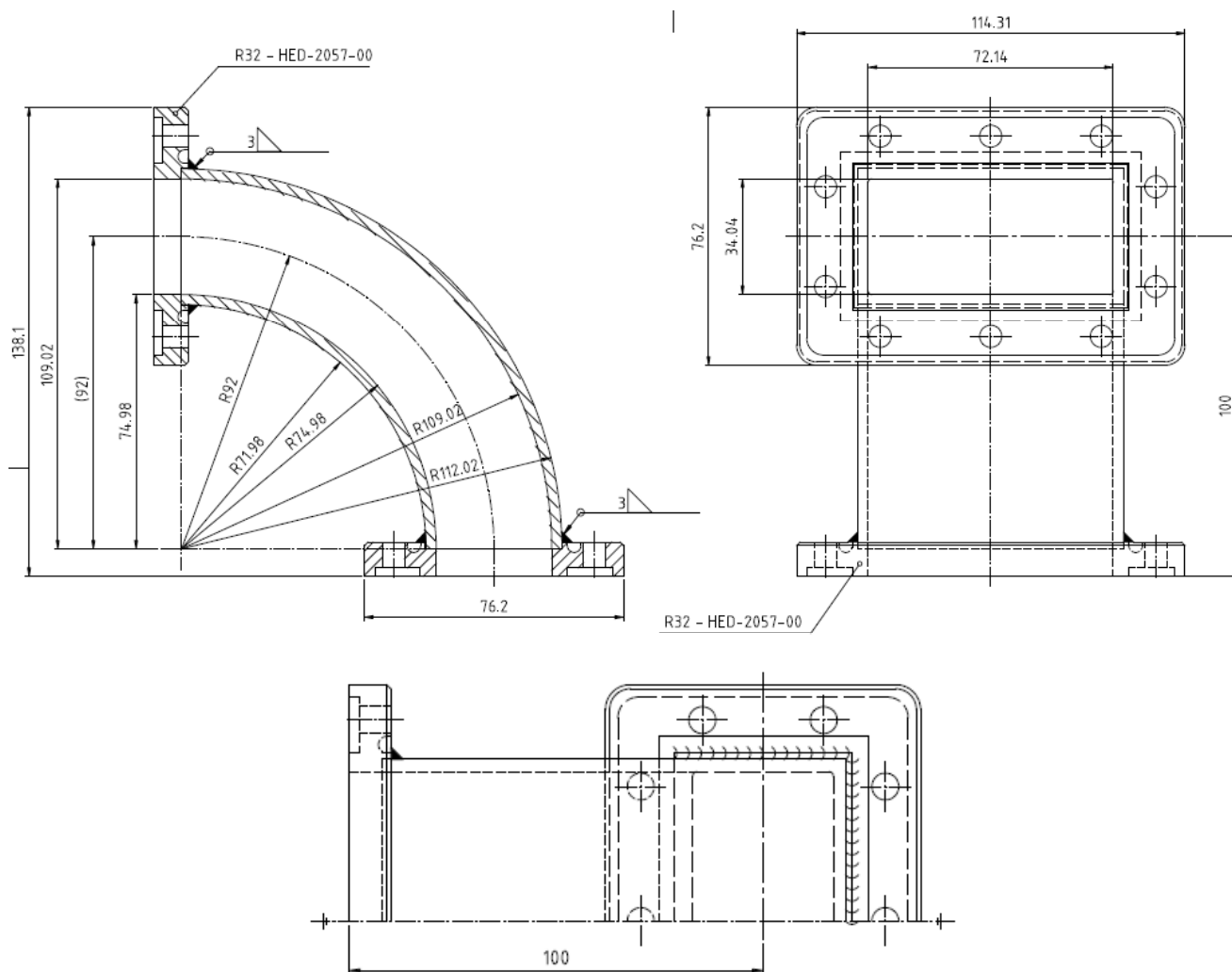
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H - BEND 90° WR284/R32/WG10

WR284HB90R150LA/SA

Features:

- Low cost and standard version available
- Light weight (Aluminum waveguide)



Standard version

Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Frequency	2.45 GHz $\pm$ 30 MHz
Power level	$\leq$ 10 kW
VSWR	$\leq$ 1.05
Flange	PDR32
Radius	150 mm
Options	Low cost version (welded finish): WR284HB90R150LA Standard version (machine finish): WR284HB90R150SA



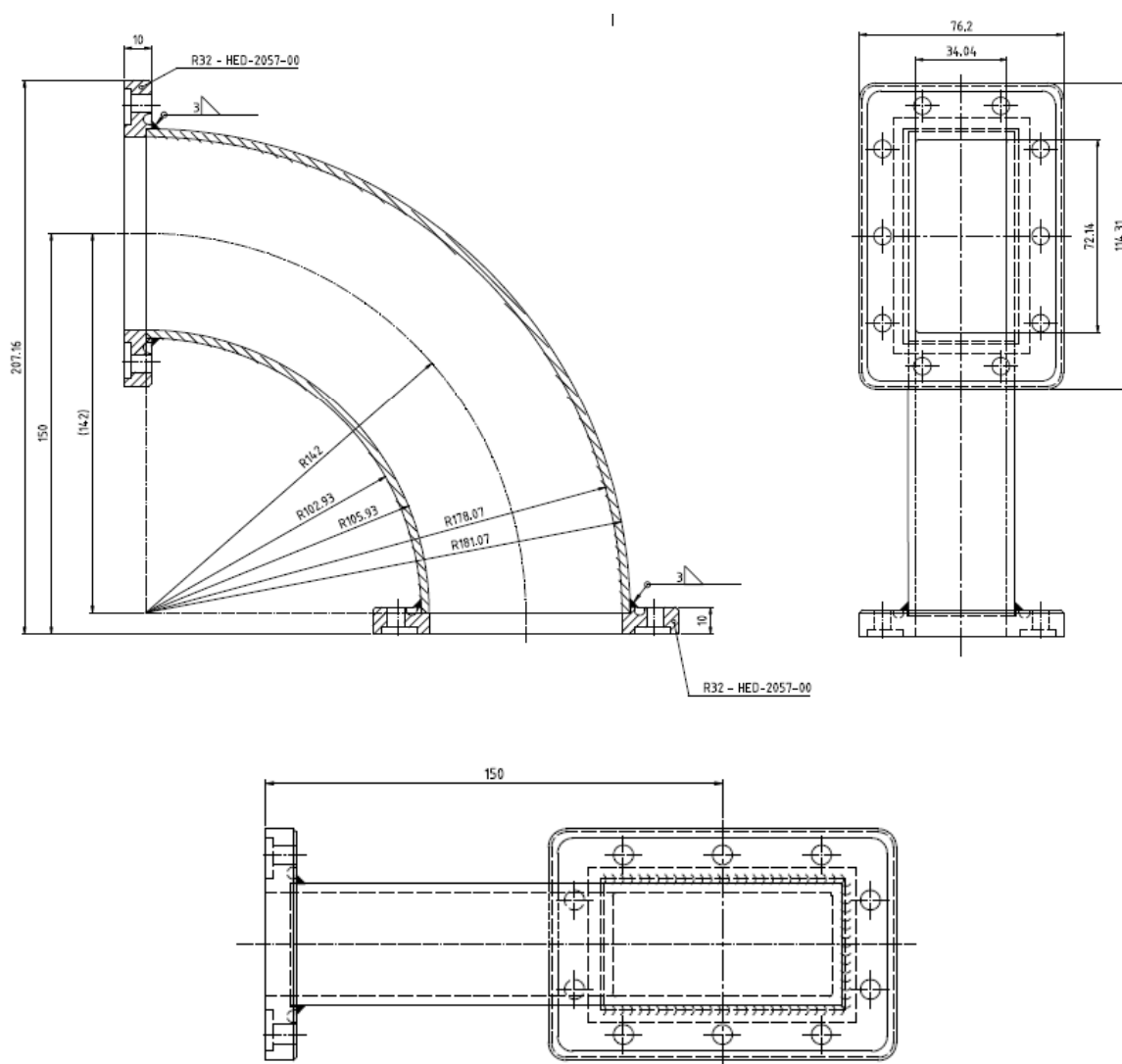
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ISOLATOR 3 KW STANDARD

WR284ISOLATOR03SA

Features:

- 3 kW forward or reflected power
- Light weight (Aluminum waveguide)

Specifications:

Frequency	2.45 GHz $\pm$ 25 MHz
Isolation	$\geq$ 23 dB
Insertion loss	$\leq$ 0.2 dB
Return loss	$\geq$ 23 dB
Power (forward or reflected)	3 kW cw
Monitor coupling	-60 dB $\pm$ 0.5 dB (@ 40 °C)
RF leakage	< 0.5 mW/cm ² (5 cm distance)
Water temperature	Inlet: +10 °C ... +40 °C
Storage temperature	-10 °C ... +70 °C
Static water pressure	$\leq$ 600 kPa
Waveguide	WR284/R32/WG10
Flange	UDR32
Monitor connector	N type female
Water connection	G 1/4" (2x)
Mounting position	any
Material	Aluminum alloy with chromitized finish
Weight	3.2 kg



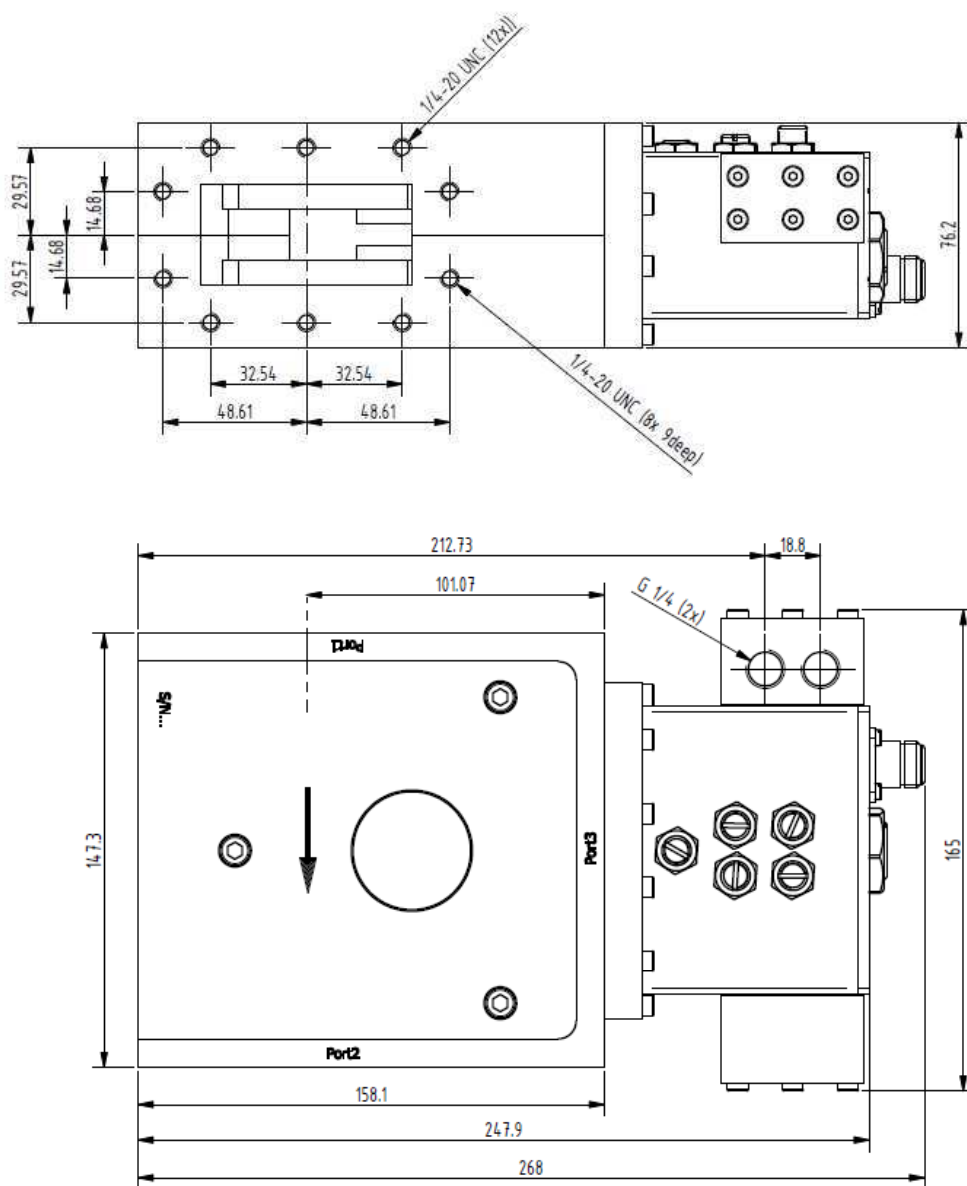
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WATER LOAD 3 KW

WR284WLOAD03SA

Features:

- 3 kW power
- Light weight (Aluminum waveguide)

Specifications:

Frequency	2.45 GHz $\pm$ 25 MHz
Return loss	$\geq$ 23 dB
Power	3 kW cw
Monitor coupling	-60 dB $\pm$ 0.5 dB (@ 40 °C)
RF leakage	< 0.5 mW/cm ² (5 cm distance)
Water temperature	Inlet: +10 °C ... +40 °C Outlet: $\leq$ +50 °C
Storage temperature	-10 °C ... +70 °C
Static water pressure	$\leq$ 600 kPa
Waveguide	WR284/R32/WG10
Flange	PDR32
Monitor connector	N type female
Water connection	G 1/4"
Mounting position	any
Material	Aluminum alloy with clear finish
Weight	1.7 kg



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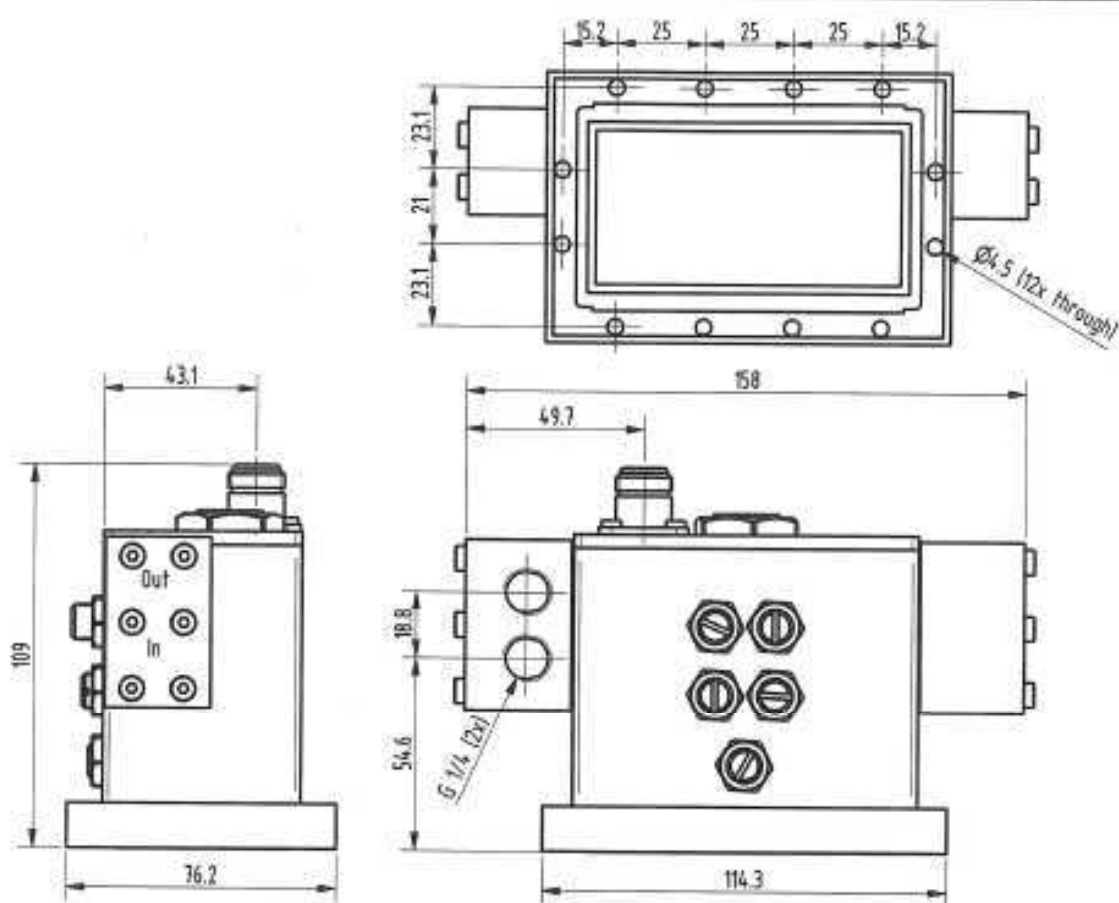
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MICROWAVE DETECTOR STANDARD 5.8 GHZ

IDM313SMA

Features:

- Microwave coaxial detector with SMA-connector
- Zero-bias Schottky diode
- For 5.8 GHz industrial applications



Specifications:

Frequency range	5.8 GHz $\pm$ 0.3 GHz
Output voltage ($P_{IN} = 1$ mW, $R_{LOAD} = 33$ k Ω)	220 mV typ
Frequency response variation	$\pm$ 0.5 dB max
Statistical spread of output voltage	$\pm$ 1 dB (3- σ deviation)
Output voltage temperature variation (5 - 65 °C)	< 0.5 dB
Output voltage polarity	Negative
Maximum input working power	10 mW
VSWR	1.3 typ, 2 max
Video resistance	8 k Ω typ
Input connector	SMA-M
DC output connector	SMA-F
Dimensions in mm (L x W x H)	38.7 x 18 x 11



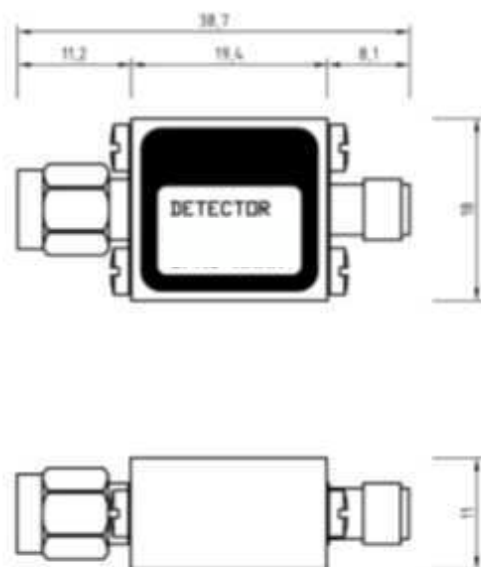
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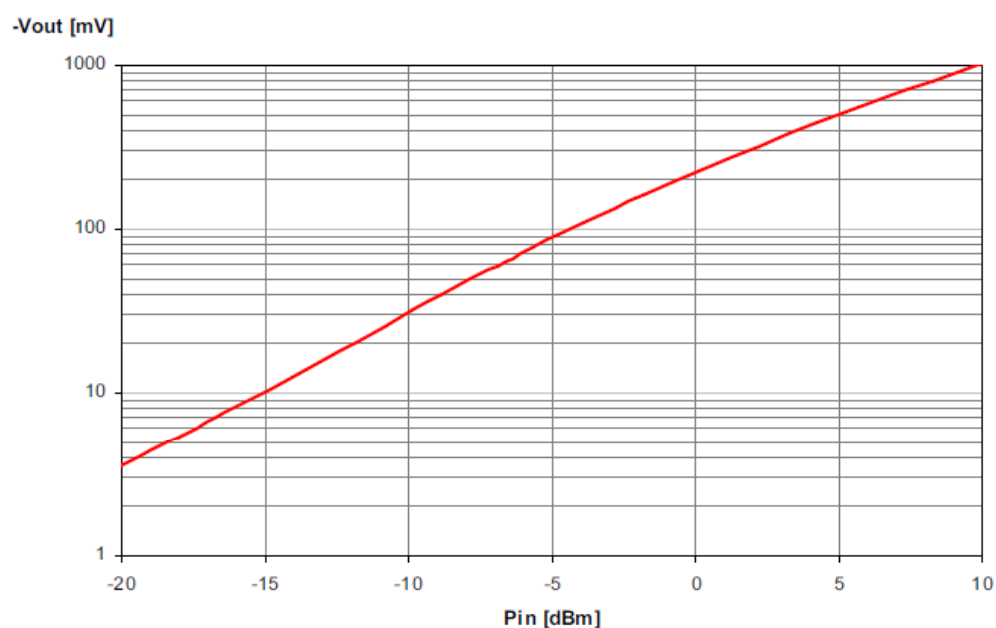


Dimensional Drawings (in mm):



Performance Chart:

Typical transfer characteristic ($f = 5.8 \text{ GHz}$, $R_{\text{LOAD}} = 33 \text{ k}\Omega$, $T_A = 25 \text{ }^\circ\text{C}$)



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DUAL - DIRECTIONAL - COUPLER

WR159DDC60NA/SA

Features:

- Output connector available with N-type and SMA-type
- Light weight (Aluminum waveguide)



N-type connector



SMA-type connector

Specifications:

Material	Aluminum with silver-coloured Chromate conversion coating
Waveguide	WR159/R58/WG13
Flange	UDR58
Output connector	N-type or SMA-type
Frequency	5.8 GHz $\pm$ 100 MHz
Directivity	≥ 25 dB
Power level	≤ 10 kW
VSWR (N, SMA)	≤ 1.6
Coupling factor	-60 dB $\pm$ 1 dB standard -50 dB $\pm$ 1 dB available on special order -70 dB $\pm$ 1 dB available on special order



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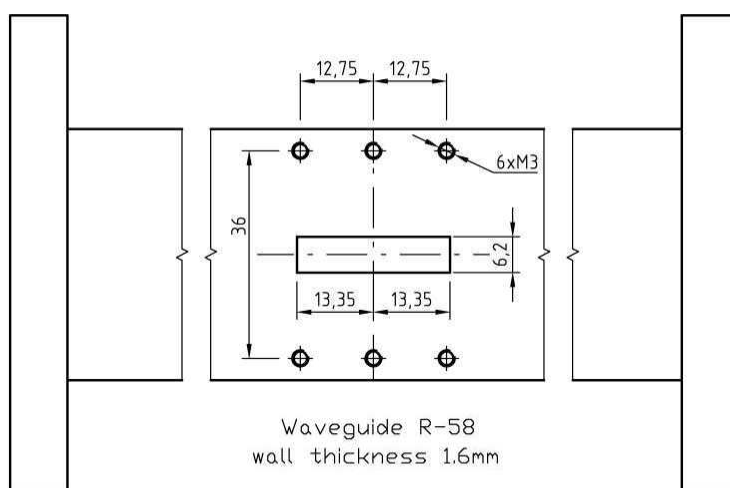
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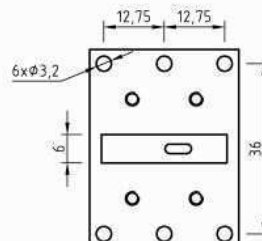
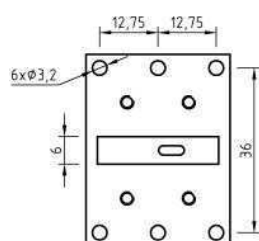
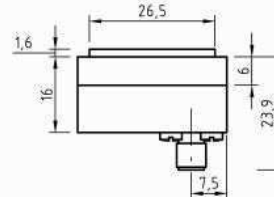
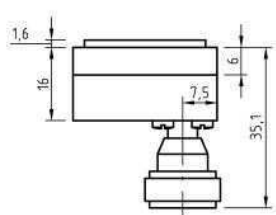
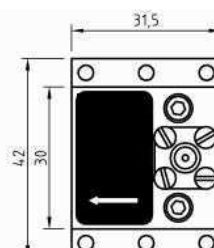
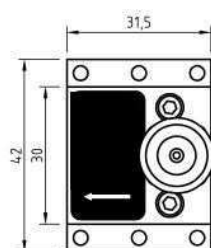
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Dimensional Drawings (in mm):



Drilling template



N-type connector

SMA-type connector



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E - BEND 90° WR159/R58/WG13

WR159EB90R050SA

Features:

- Light weight (Aluminum waveguide)



Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Frequency	5.8 GHz $\pm$ 50 MHz
Waveguide	WR159/R58/WG13
Power level	$\geq$ 2 kW
VSWR	$\leq$ 1.05
Flange	UDR58
Radius	50 mm



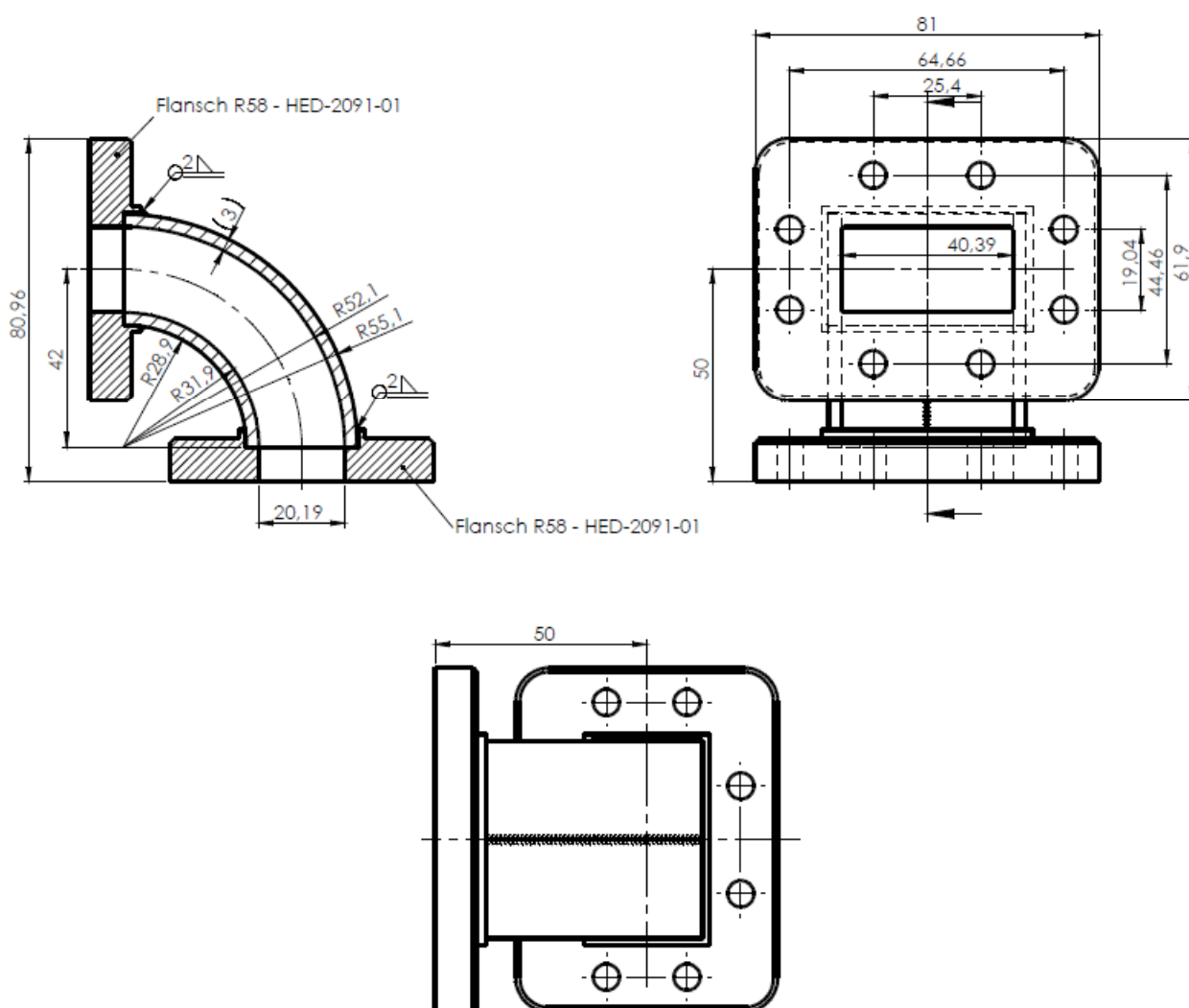
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H - BEND 90° WR159/R58/WG13

WR159HB90R075SA

Features:

- Light weight (Aluminum waveguide)

Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Frequency	5.8 GHz $\pm$ 50 MHz
Waveguide	WR159/R58/WG13
Power level	$\geq$ 2 kW
VSWR	$\leq$ 1.05
Flange	UDR58
Radius	75 mm



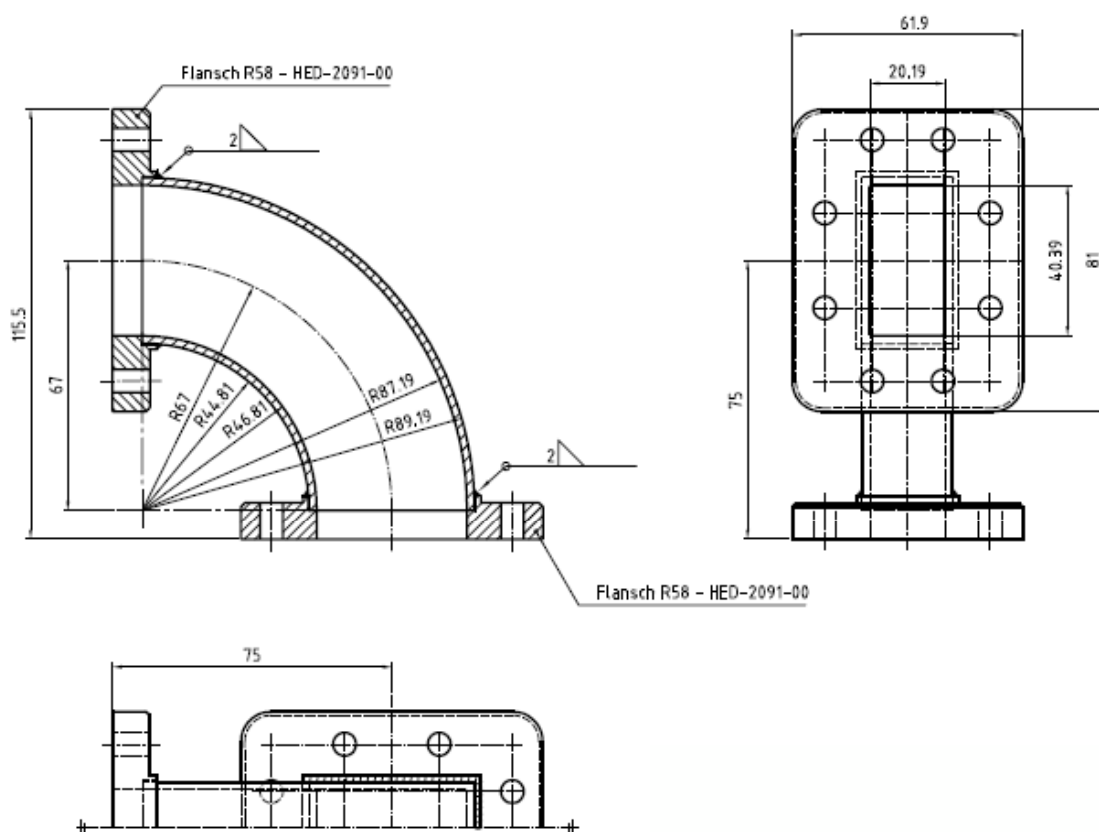
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ISOLATOR 800 W STANDARD

WR159ISOLATOR01SA

Features:

- 800 W forward or reflected power
- Light weight (Aluminum waveguide)



Specifications:

Frequency	5.8 GHz $\pm$ 50 MHz
Isolation	$\geq$ 20 dB
Insertion loss	$\leq$ 0.25 dB
Return loss	$\geq$ 20 dB
Power (forward or reflected)	$\leq$ 800 W cw
Monitor coupling (reflection)	-50 dB $\pm$ 1 dB
Water temperature	Inlet: +10 °C ... +40 °C Outlet: $\leq$ +50 °C
Waveguide	WR159/R58/WG13
Flange	UDR58
Monitor connector	SMA female
VSWR	$\leq$ 1.25
Material	Aluminum alloy with chromitized finish



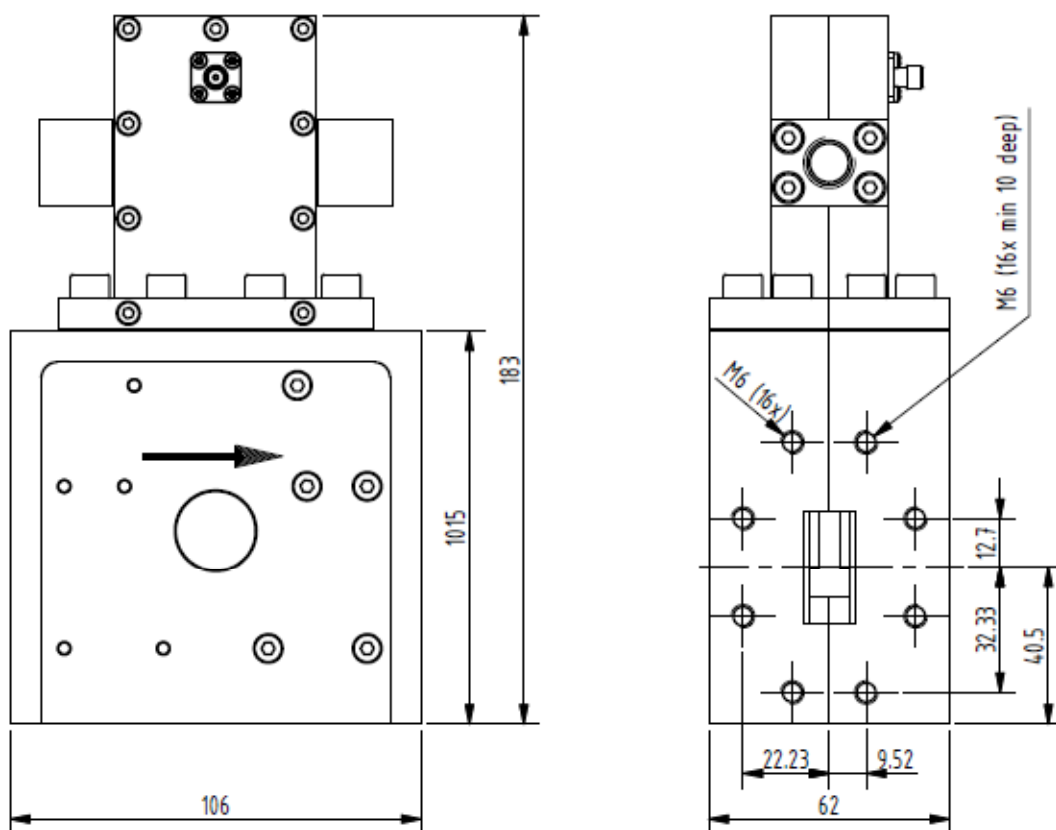
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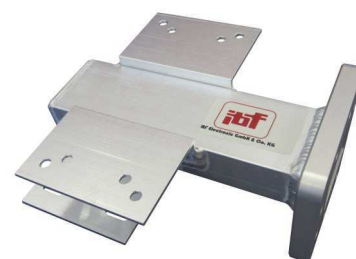
UNIVERSAL MAGNETRON LAUNCHER

W/ HOLDER

WR159LAUNCHERFA

Features:

- Suitable for magnetrons with power up to 1 kW
- Light weight (Aluminium waveguide)



Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Waveguide	WR159/R58/WG13
Flange	UDR58
Suitable magnetrons	300 W - 1 kW
Frequency	5.8 GHz
Holder	With holder for filament transformer



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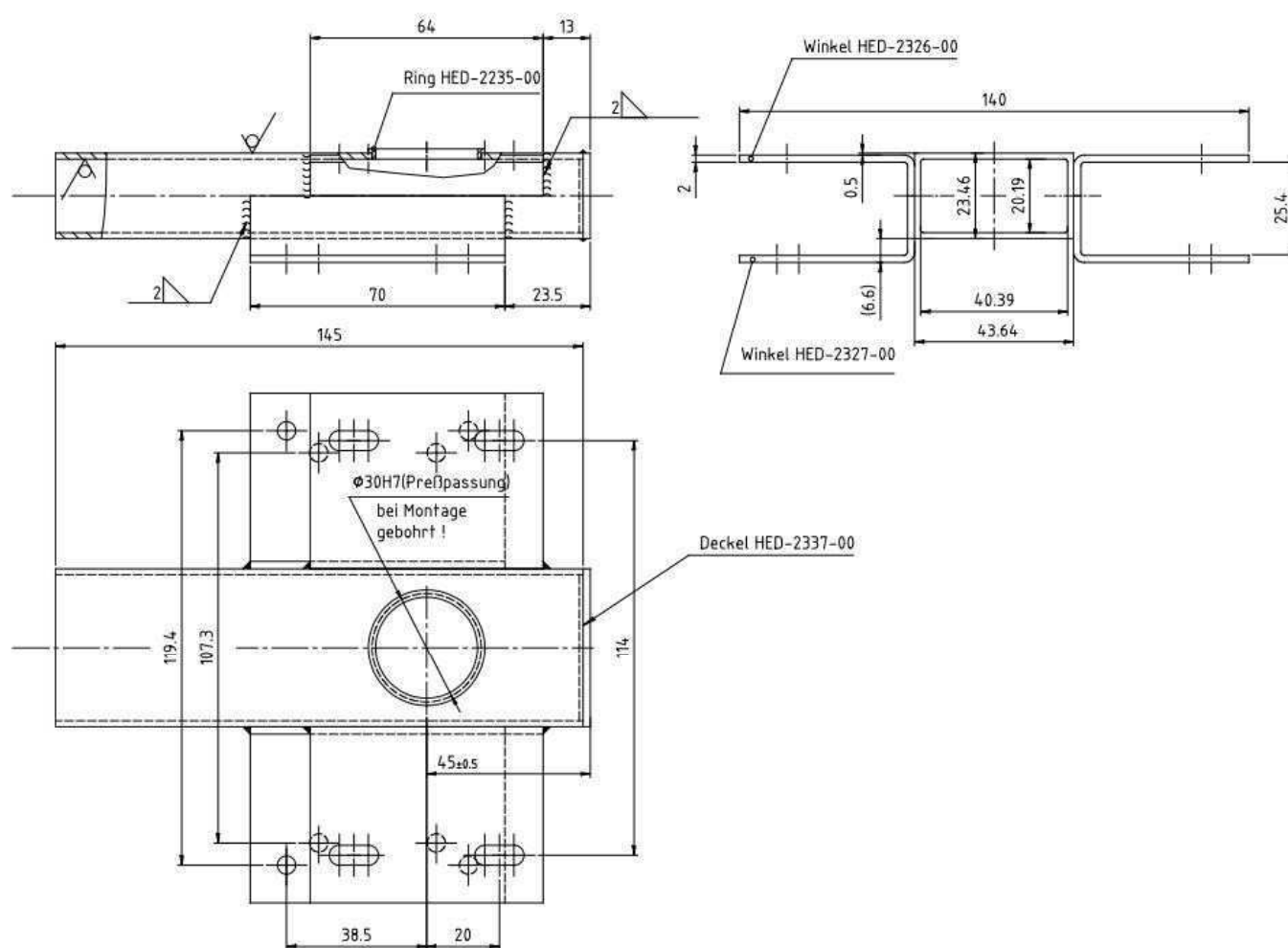
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3 - STUB - TUNER

WR159PTUN3A

Features:

- With digital position indicator
- Light weight (Aluminum waveguide)



Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Frequency	5.8 GHz $\pm$ 50 MHz
Power level	$\leq$ 2 kW
Waveguide	WR159/R58/WG13
Flange	UDR58
Length	202 mm
Cooling	Air-cooled
VSWR	$\leq$ 10



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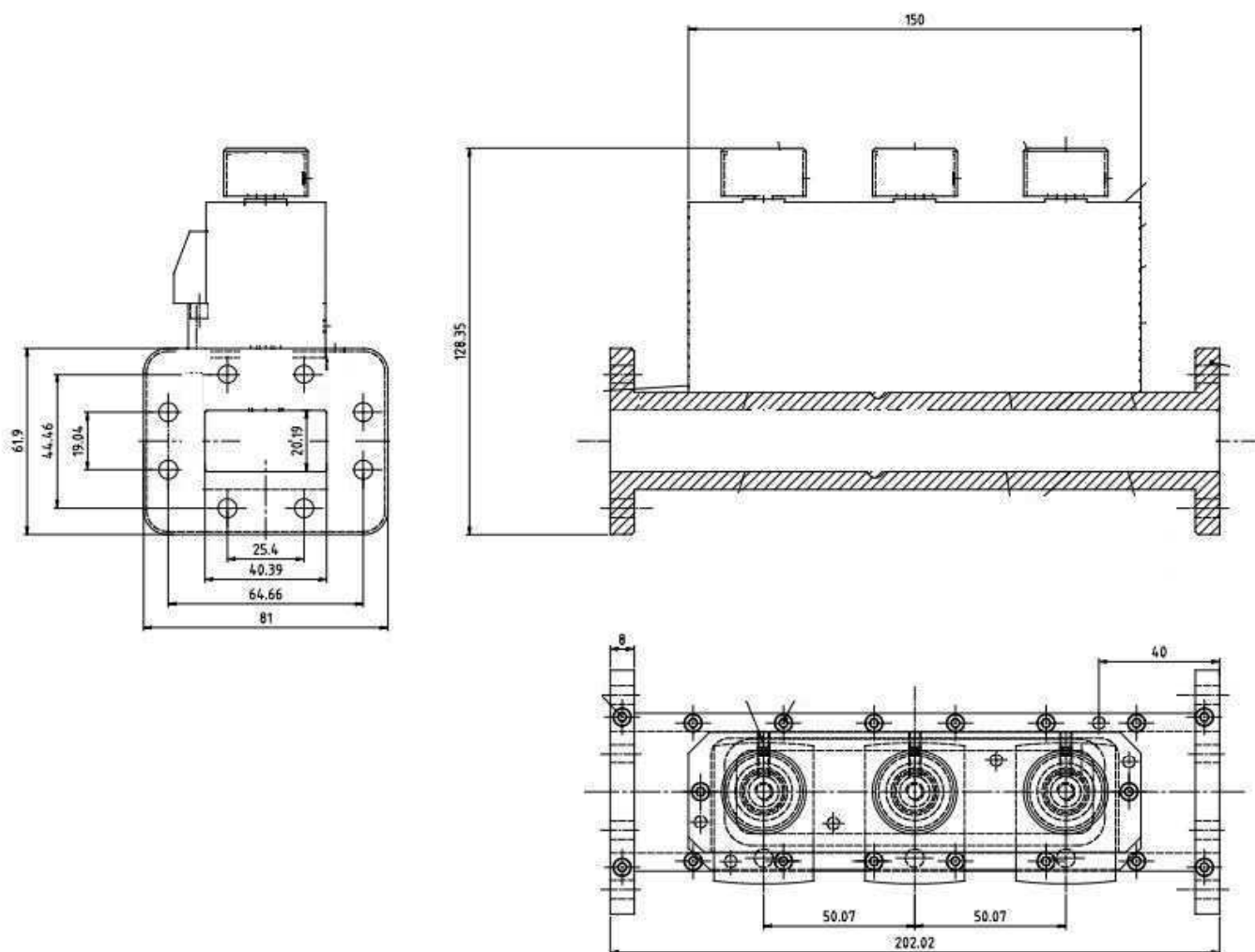
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EH - TUNER

WR159SEHTUNAC175A

Features:

- With precision adjustment
- Light weight (Aluminum waveguide)



Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Frequency	5.8 GHz $\pm$ 50 MHz
Power level	$\leq$ 2 kW
Waveguide	WR159/R58/WG13
Flange	UDR58
Length	175 mm
Cooling	Air-cooled
VSWR	$\leq$ 10



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Version: May 2018, AF

SLIDING SHORT

WR159SHORTPCA

Features:

- With precision adjustment
- Light weight (Aluminum waveguide)



Specifications:

Material	Aluminum
Finish	Silver-coloured Chromate conversion coating
Weight	0.5 kg
Frequency	5.8 GHz $\pm$ 25 MHz
Power level	$\leq$ 2 kW at 5.8 GHz
Waveguide	WR159/R58/WG13
Flange	UDR58
Adjustment range	68 mm



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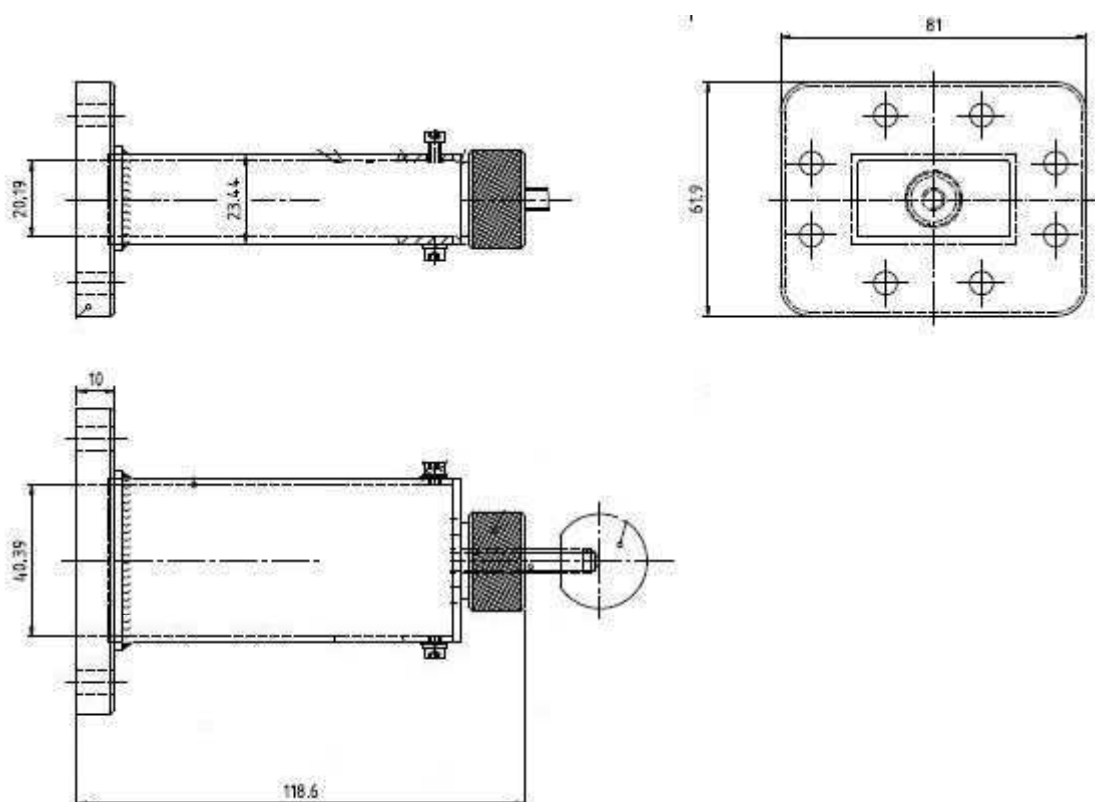
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Version: May 2018, AF



Dimensional Drawings (in mm):



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WATER LOAD 800 W

WR159WLOAD01A

Features:

- 800 W power
- Light weight (Aluminum waveguide)



Specifications:

Frequency	5.8 GHz $\pm$ 50 MHz
Return loss	$\geq$ 20 dB
Power	800 W cw
Monitor coupling	-50 dB $\pm$ 1 dB
Water temperature	Inlet: +10 °C ... +40 °C Outlet: $\leq$ +50 °C
Waveguide	WR159/R58/WG13
Flange	UDR58
Monitor connector	SMA female
Material	Aluminum alloy with clear finish



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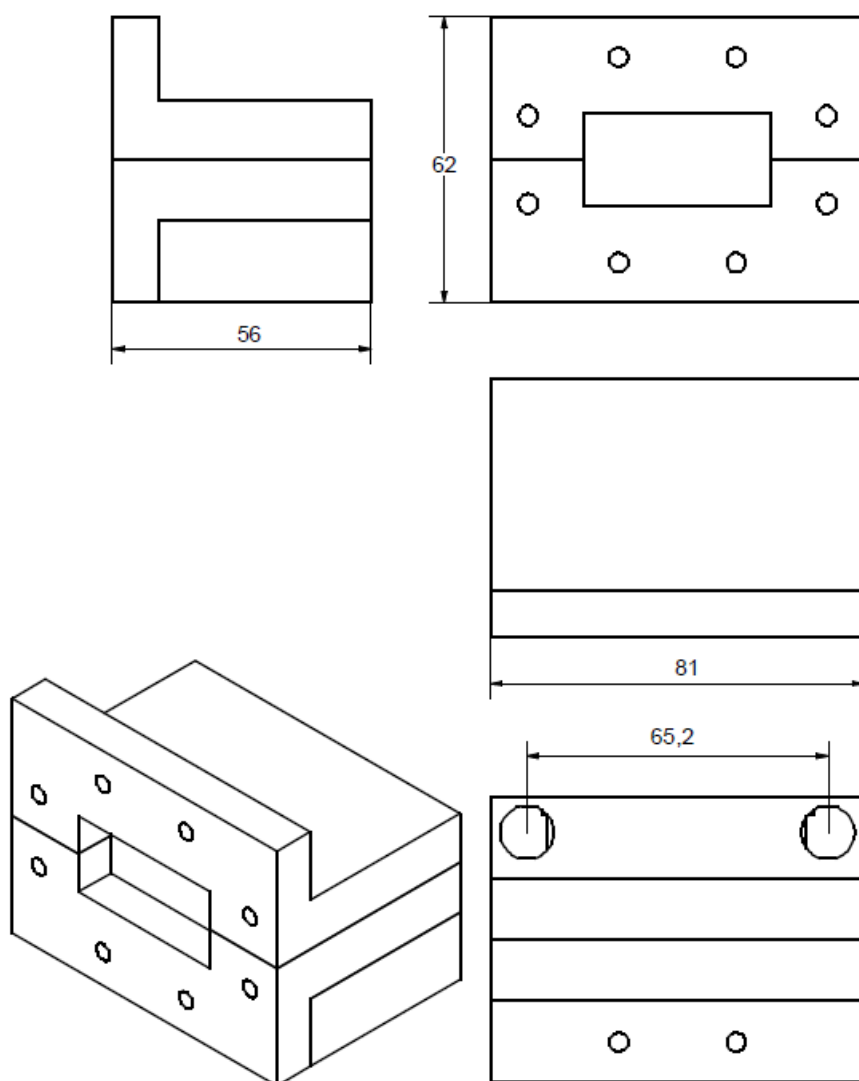
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ISOLAUNCHER 1 5/8" COAX 3 KW

COAX1-5/8ISOLAUNCH003A

Features:

- 3 kW forward or reflected power
- Light weight (Aluminum waveguide)

Specifications:

Frequency	2.45 GHz $\pm$ 25 MHz
Isolation	$\geq$ 23 dB
Insertion loss	$\leq$ 0.2 dB
Power	3 kW cw (100% reflection allowed)
Temperature	0 °C ... +50 °C
Connection	1 5/8"
VSWR	$\leq$ 1.15
Material	Aluminum alloy with silver-coloured Chromate conversion coating



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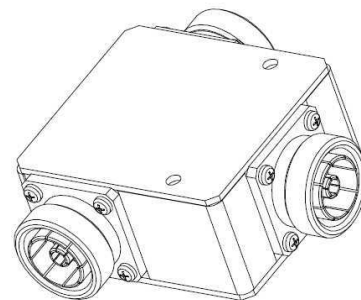
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COAX - CIRCULATOR 7/16"

COAX7/16CIRCULATOR1KWA

Features:

- 1.2 kW power
- 3x 7/16" female connectors
- Light weight (Aluminum waveguide)



Specifications:

Frequency	2.45 GHz $\pm$ 25 MHz
Isolation	$\geq$ 23 dB
Insertion loss	$\leq$ 0.2 dB
Power	1.2 kW cw, 2 kW peak
Temperature	0 °C ... +60 °C
Connectors	7/16" female (3x)
VSWR	$\leq$ 1.15
Material	Aluminum alloy with chromatized finish



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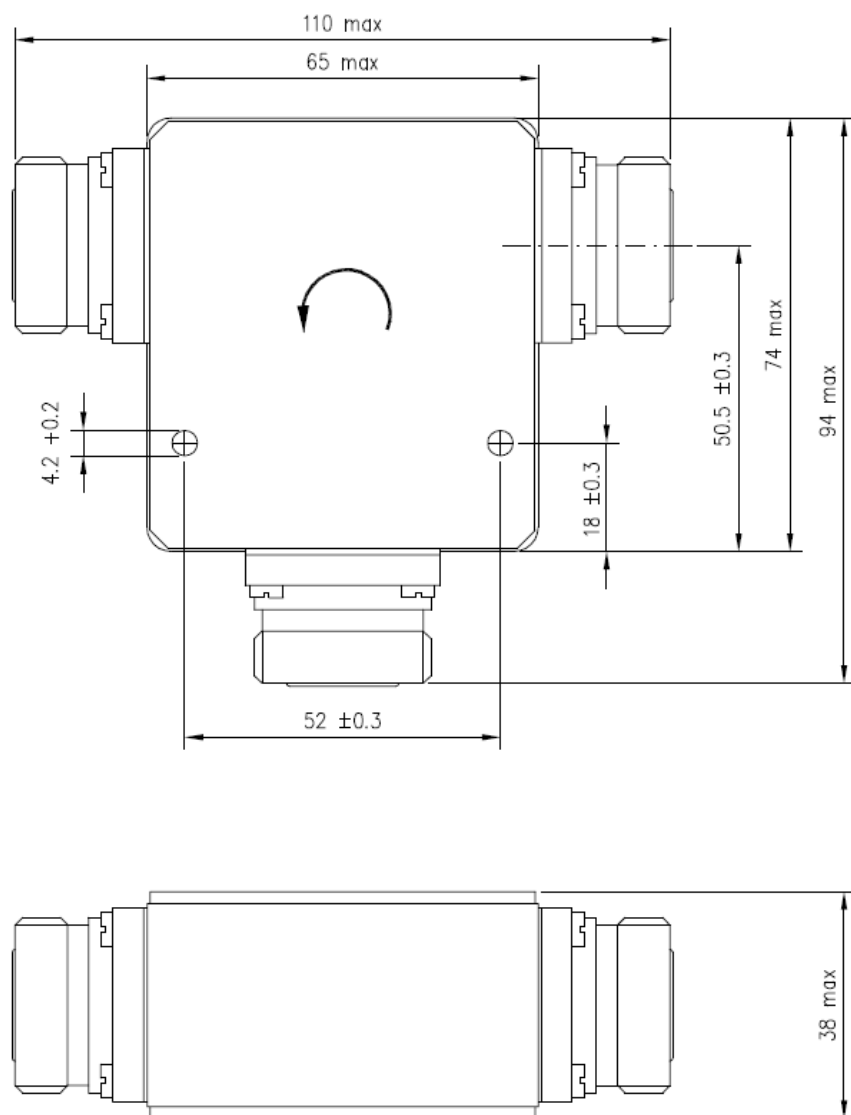
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COAX - ISOLATOR N

COAXNISOLATOR200WA

Features:

- 200 W power reverse power
- N type female connectors
- Light weight (Aluminum waveguide)

Specifications:

Frequency	2.45 GHz $\pm$ 25 MHz
Isolation	$\geq$ 20 dB
Insertion loss	$\leq$ 0.25 dB
Power	300 W average, 600 W peak
Reverse Power	200 W (flange temperature < 60° C)
Monitor coupling	-40 dB $\pm$ 1 dB input/reflected power
Temperature	-10° C ... +60° C
Connectors	In/Out: N (female) Monitors: SMA (female)
VSWR	$\leq$ 1.25
Material	Aluminum alloy with chromatzied finish



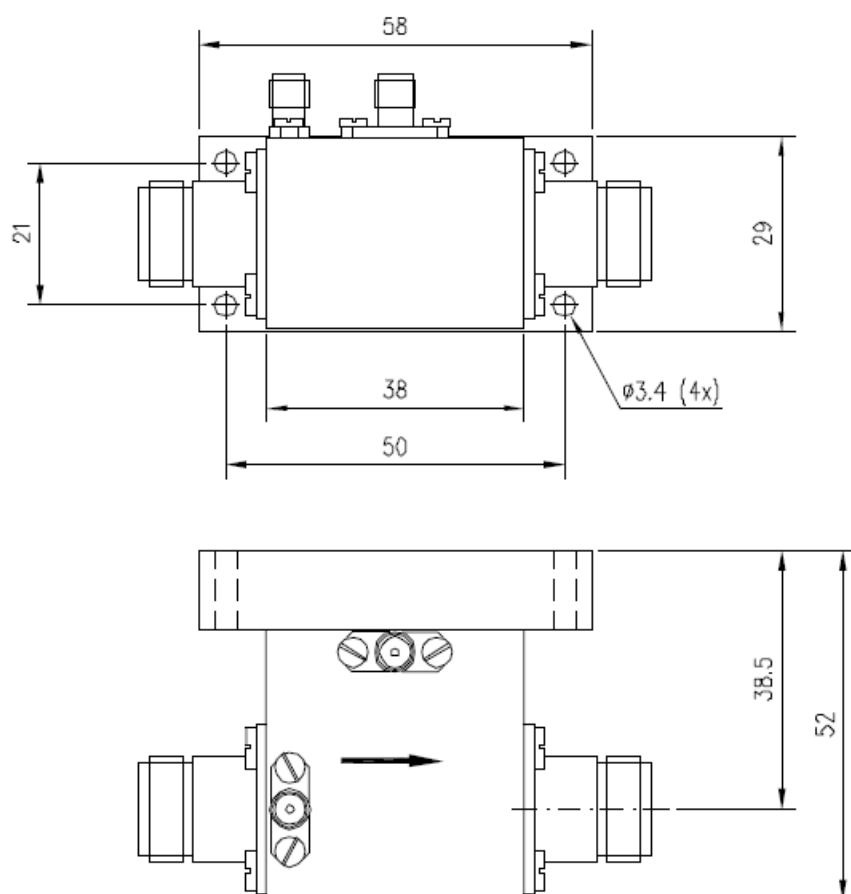
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