



### WAVEGUIDE WR42 DUPLEXER

**RX: 21.740-22.400GHz**

**TX: 22.940-23.600 GHz**

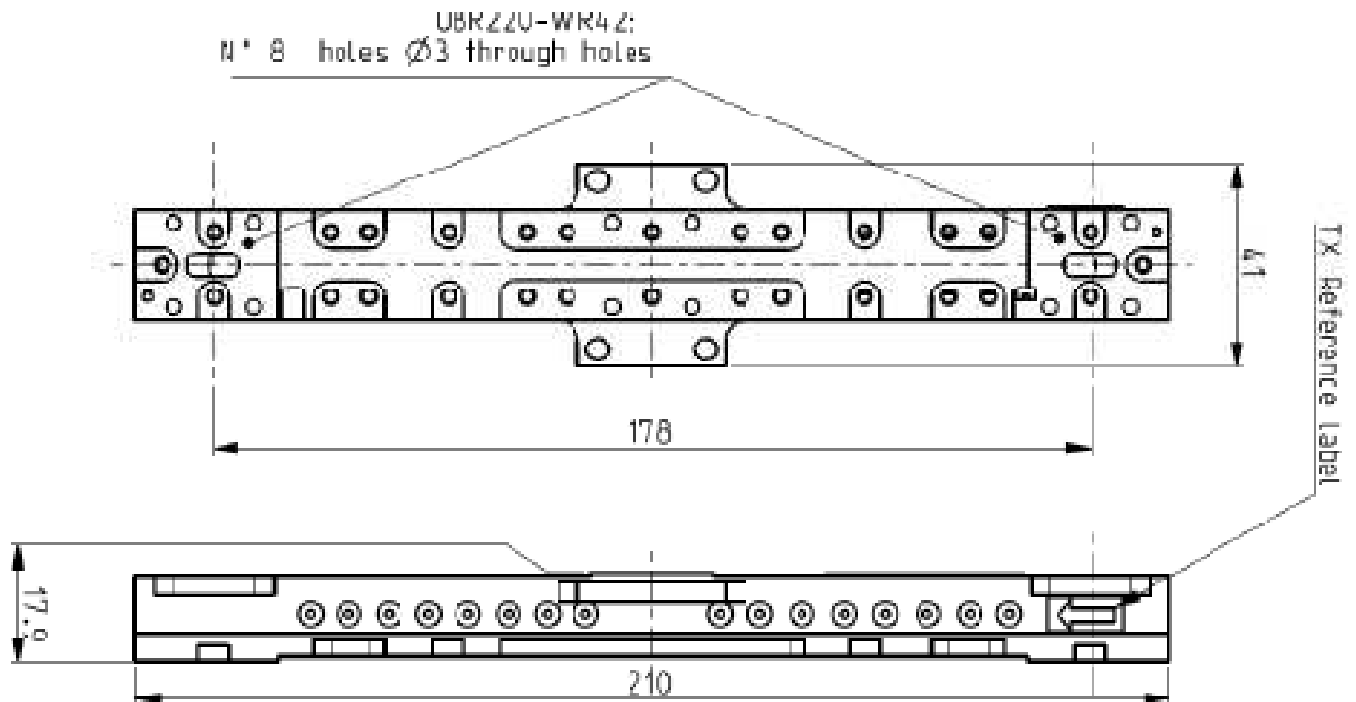
- Compact size and high power handle
- Very high rejection outdoor unit
- Compatible with ITU Standard
- Different frequency and flange available upon request
- Storage temperature -40~+80°C
- Operational Temperature: -30~+70 °C
- Operating Humidity: 0~90% relative
- Material: Aluminum
- Body finish : 2~3µm Ag plated
- Tchebyscheff Response
- Mechanical Test ETS 300-019-1-3 class 3.3

#### Electrical Specification

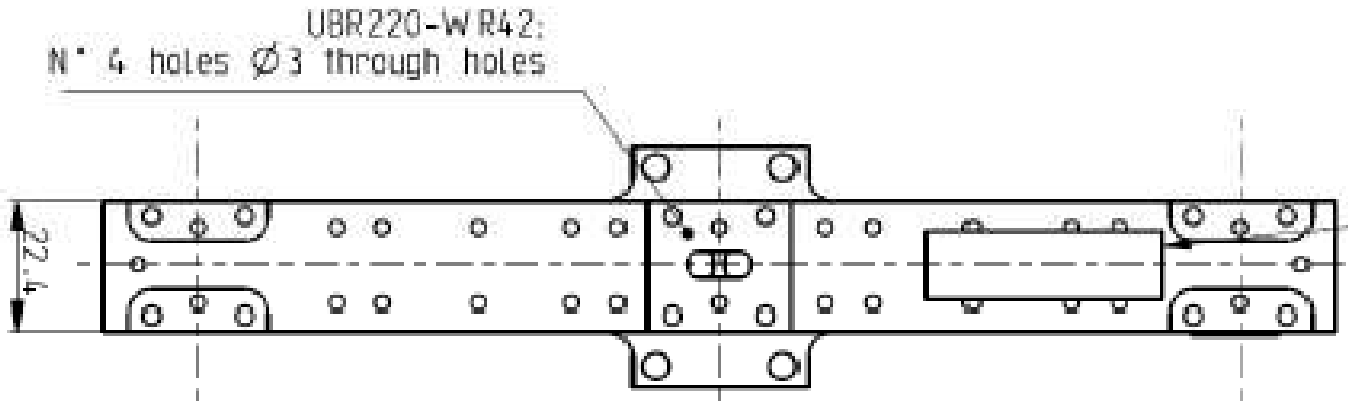
Frequency Range:	RX: 21.740-22.400GHz TX: 22.940-23.600GHz
Insertion Loss:	CH1: 1.5dB max CH2: 1.5dB max
Pass band Ripple:	0.65dB maximum
Power Handle:	200W
Isolation between port:	65dB
Flange:	WR42 CPRF
Impedance:	50 Ω

#### Environmental Specification

Humidity: According to ETS 300-019-1-3 class 3.3 (par. To 5.1 “climatic conditions”)



WAVEGUIDE WR42 DUPLEXER 21.740-22.400GHZ AND 22.940-23.600GHZ



The following TX and RX channel available upon request.

Tx Frequency range		Rx Frequency range		Bandwidth [MHz]		Shifter [MHz]
Fstart [MHz]	Fstop [MHz]	Fstart [MHz]	Fstop [MHz]	Low band	High band	
FL1	FL2	FH1	FH2			
22000,0	22600,0	23000,0	23600,0	600	600	1008
FH1	FH2	FL1	FL2			
23000,0	23600,0	22000,0	22600,0	600	600	1008
FL1	FL2	FH1	FH2			
21200,0	21860,0	22400,0	23060,0	660	660	1232
21740,0	22400,0	22940,0	23600,0	660	660	1232
21200,0	21860,0	22400,0	23060,0	660	660	1200
21740,0	22400,0	22940,0	23600,0	660	660	1200
FH1	FH2	FL1	FL2			
22400,0	23060,0	21200,0	21860,0	660	660	1232
22940,0	23600,0	21740,0	22400,0	660	660	1232
22400,0	23060,0	21200,0	21860,0	660	660	1200
22940,0	23600,0	21740,0	22400,0	660	660	1200

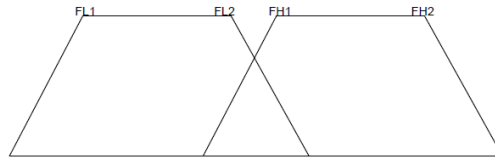


Fig.1 Frequency Diagram Attenuation

### ISOLATION

- Isolation in band (iso in) [Port 1 to the Port under test] > 65 dB typical
- Isolation in band (iso in) [Port 1 to the Port under test] > 65 dB in temperature
- Isolation out band (iso out) [Port 1 to the Port under test] > 40 dB

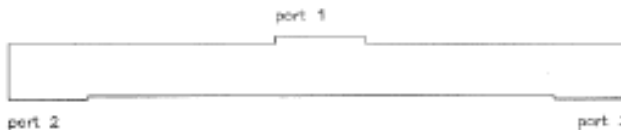


Fig.1 Port Description

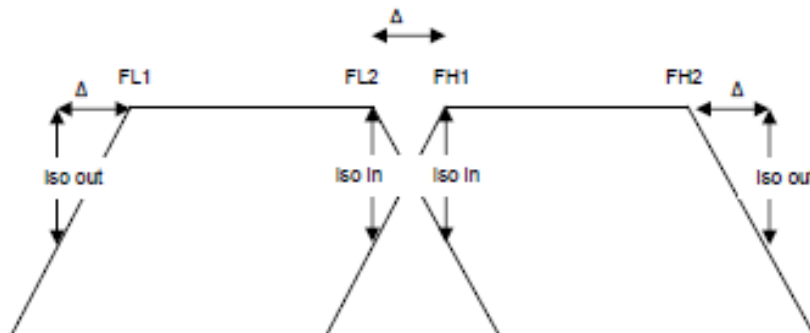


Fig.2 Frequency Diagram Isolation

## Isolation port2 - port3

With the port 1 terminated with a load see Fig.4

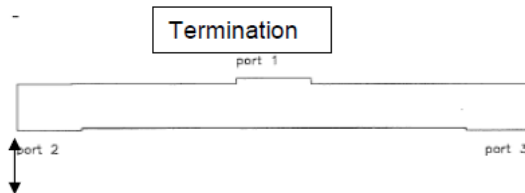


Fig.4 Isolation port 2 - port 3 setting

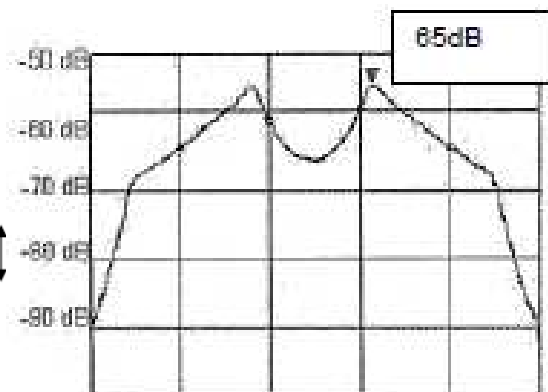


Fig.4 Isolation diagram

Isolation Port 2 - Port 3 >65 dB  
See Fig. 5 for typical diagram of this measure