UMTS – MULTIPLEXER UNIT

not binding

Basis modul:
BN5733EL-5

Consisting of:
1 pcs. Multiplexer (BN B09692)
1 pcs. Multiplexer (BN B09693)

Connectors:
7-16 female (50 Ohms)

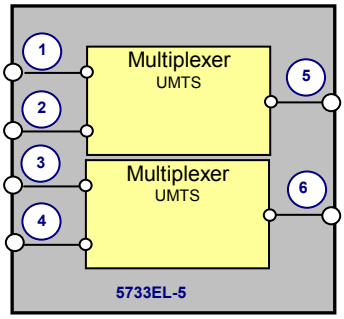
Frequency range:

Port 1	1969.8 - 1979.7 / 2159.8 - 2169.7 MHz (T-Mobile)
Port 2	1920.3 - 1930.2 / 2110.3 - 2120.2 MHz (Vodafone)
Port 3	1959.9 - 1969.8 / 2149.9 - 2159.8 MHz (O_2)
Port 4	1940.1 - 1950.0 / 2130.1 - 2140.0 MHz (E-Plus)

Port identification according to front-panel inscription.

Insertion loss:

Port 1 or 2 → Port 5	≤ 1.4 dB
Port 3 or 4 → Port 6	≤ 1.4 dB



Block Diagram

Isolation:

Port 1 ↔ 2	≥ 50 dB
Port 3 ↔ 4	≥ 30 dB

VSWR: ≤ 1.2

Test voltage: 2.2 kV

Power rating: 50 W CW max per input

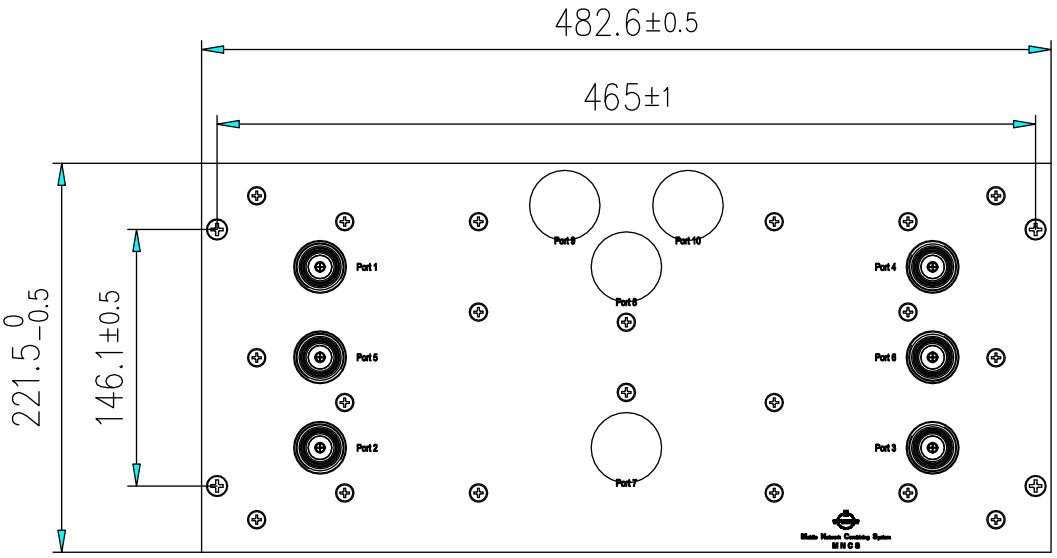
IM – value:
3rd order @ 2 x 20 W ≥ 160 dBc

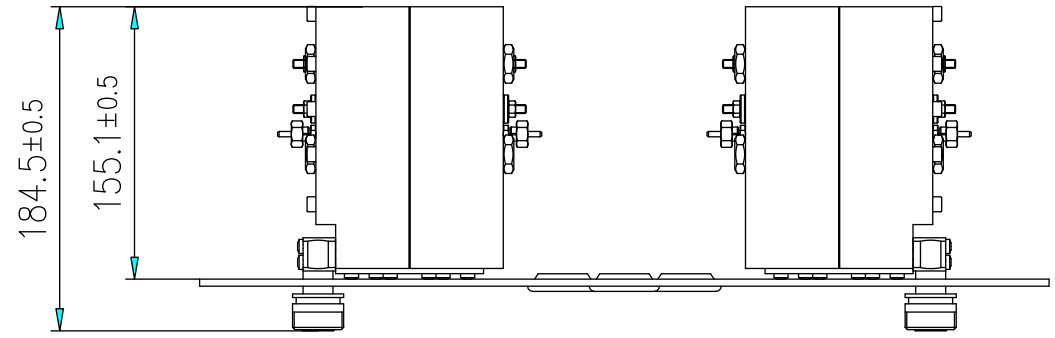
Degree of protection: IP 20

Temperature range: -5°C - +55°C

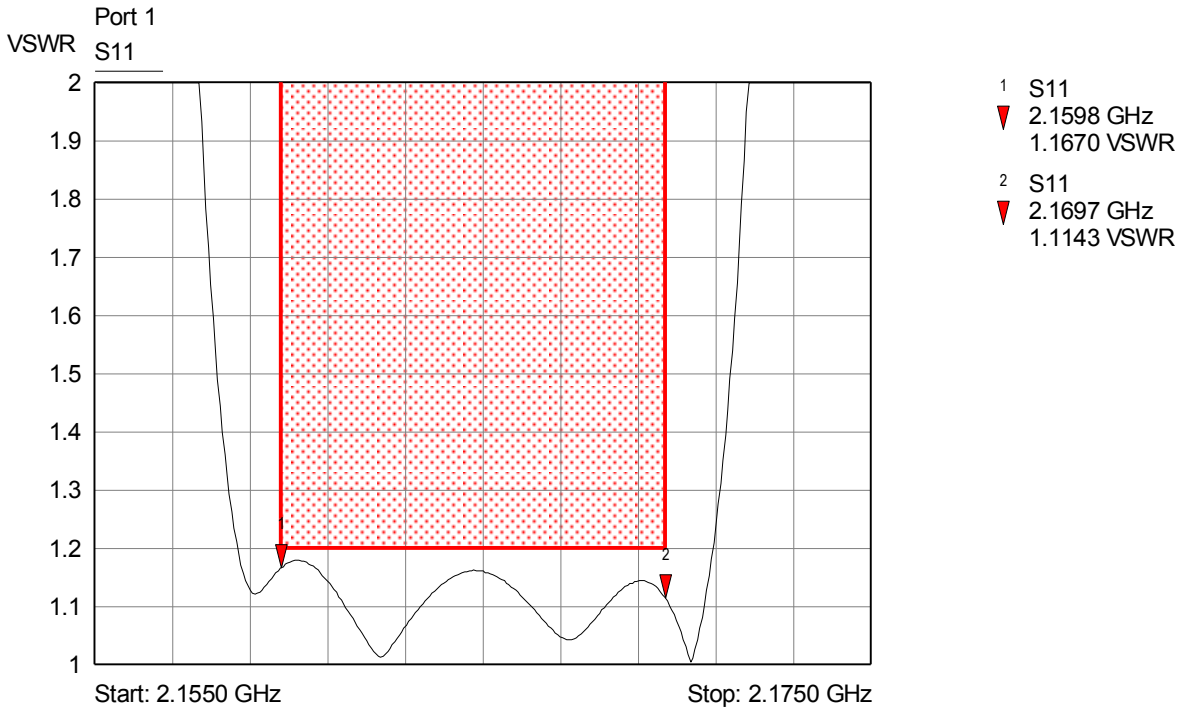
Appendix:
Dimensions
Measurements for VSWR
Insertion loss
Isolation

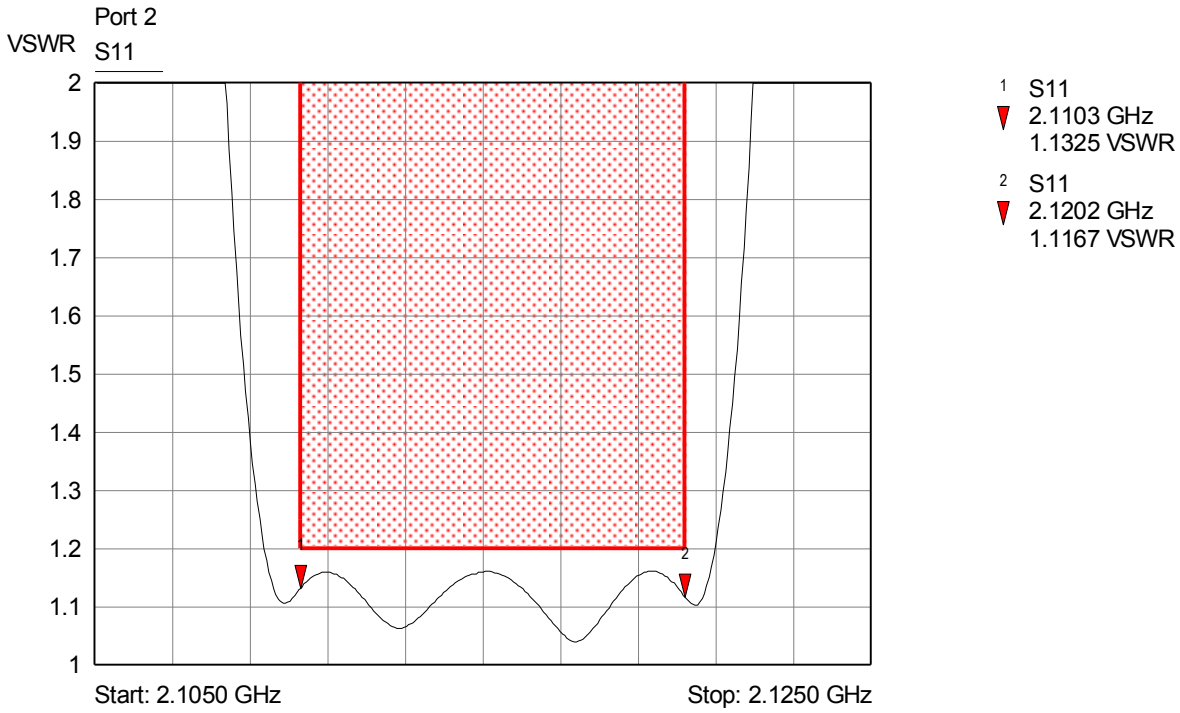
Dimensions:

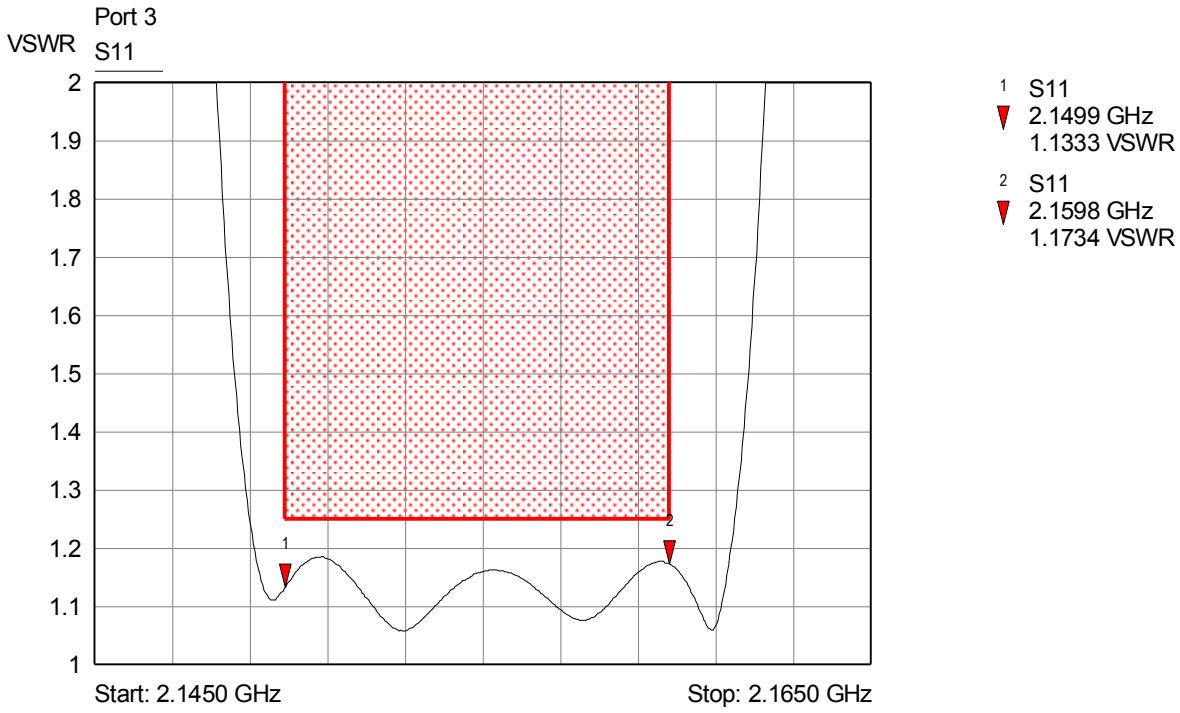

482.6±0.5
465±1
221.5 0 -0.5
146.1±0.5
Port 1
Port 2
Port 3
Port 4
Port 5
Port 6
Port 7
Port 8
Port 9
Port 10

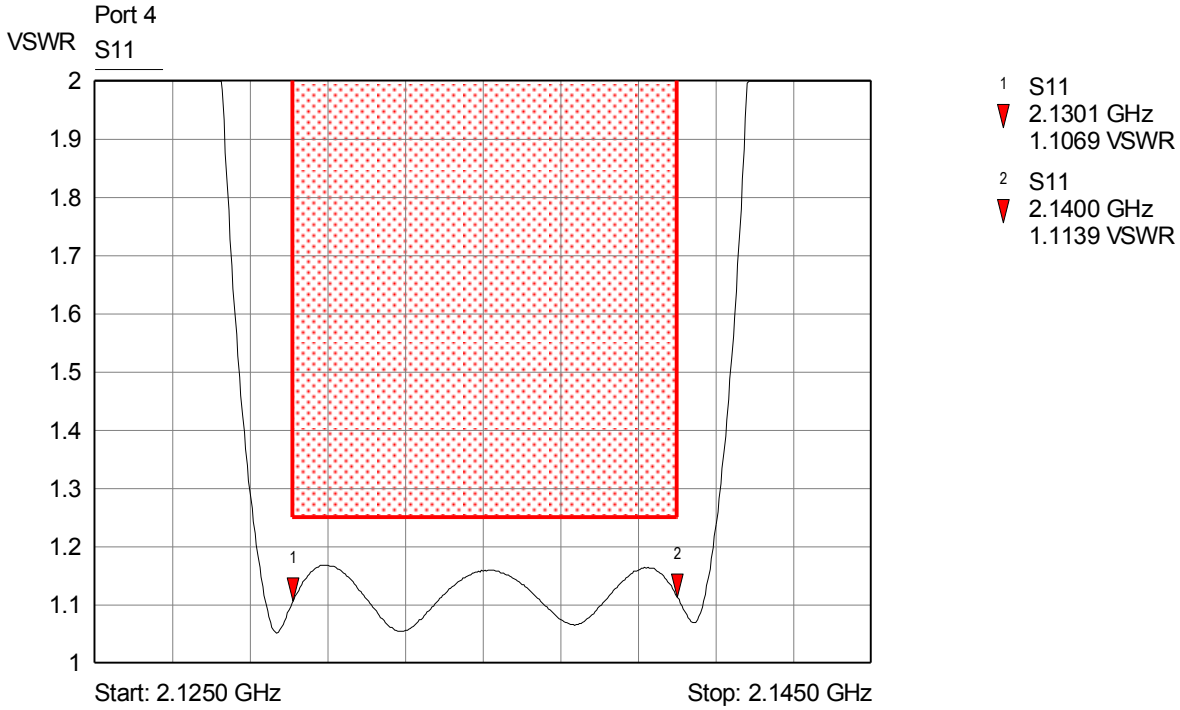

184.5±0.5
155.1±0.5

VSWR:

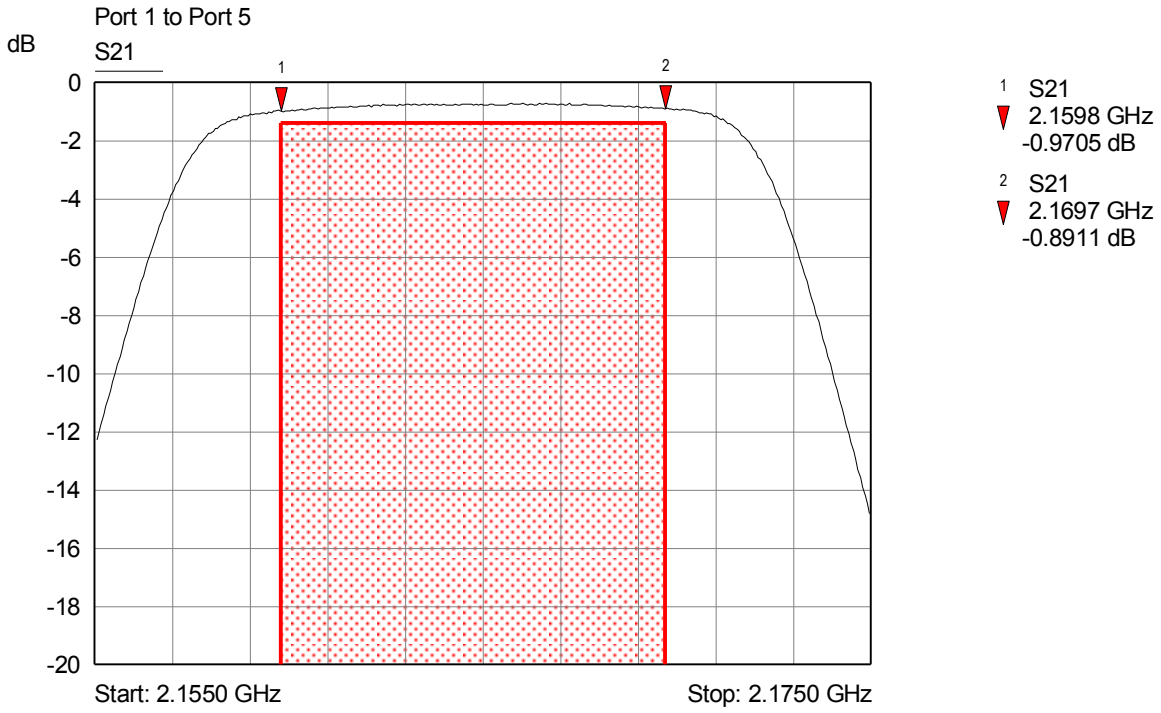

Port 1
S11
VSWR
2
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1
Start: 2.1550 GHz
Stop: 2.1750 GHz
1 S11
2.1598 GHz
1.1670 VSWR
2 S11
2.1697 GHz
1.1143 VSWR

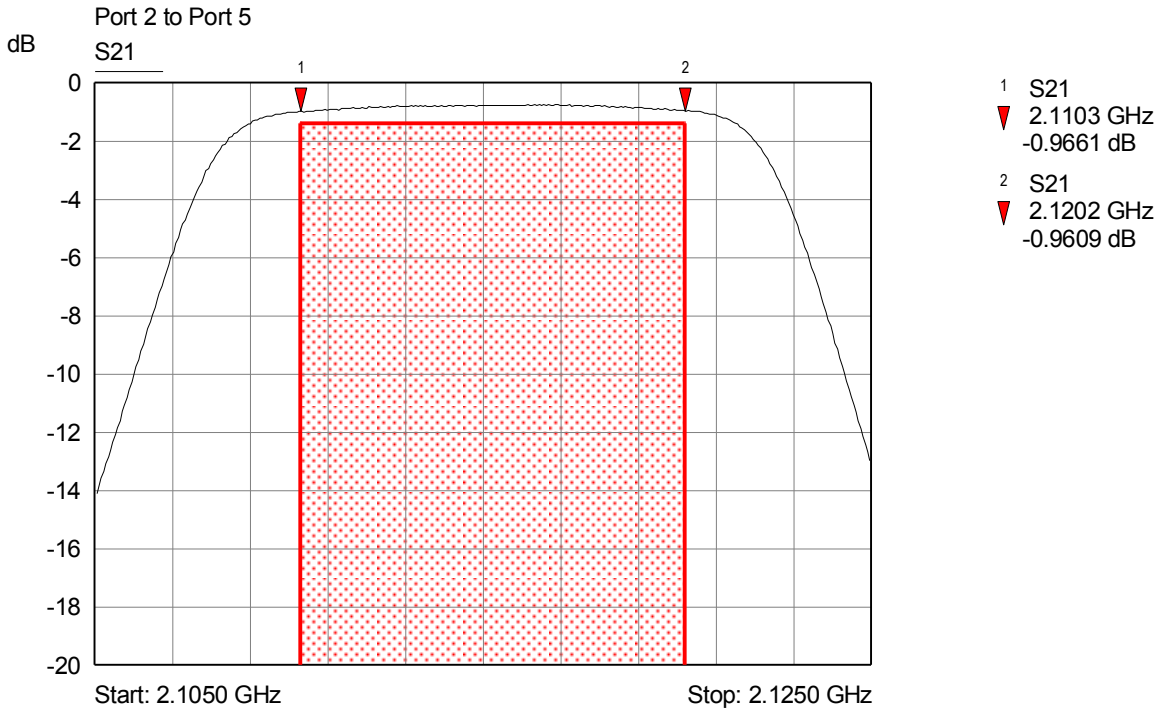

Port 2
S11
VSWR
2
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1
Start: 2.1050 GHz
Stop: 2.1250 GHz
1 S11
2.1103 GHz
1.1325 VSWR
2 S11
2.1202 GHz
1.1167 VSWR

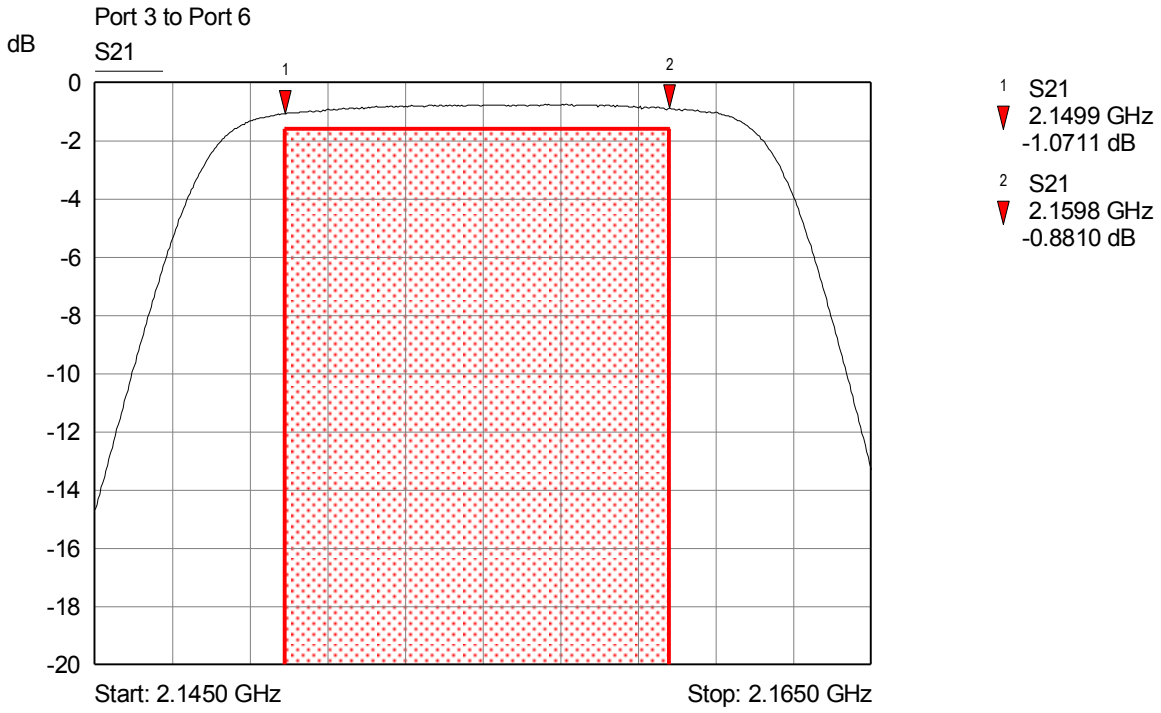

Port 3
VSWR
S11
2
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1
1
2
Start: 2.1450 GHz
Stop: 2.1650 GHz
1 S11
2.1499 GHz
1.1333 VSWR
2 S11
2.1598 GHz
1.1734 VSWR

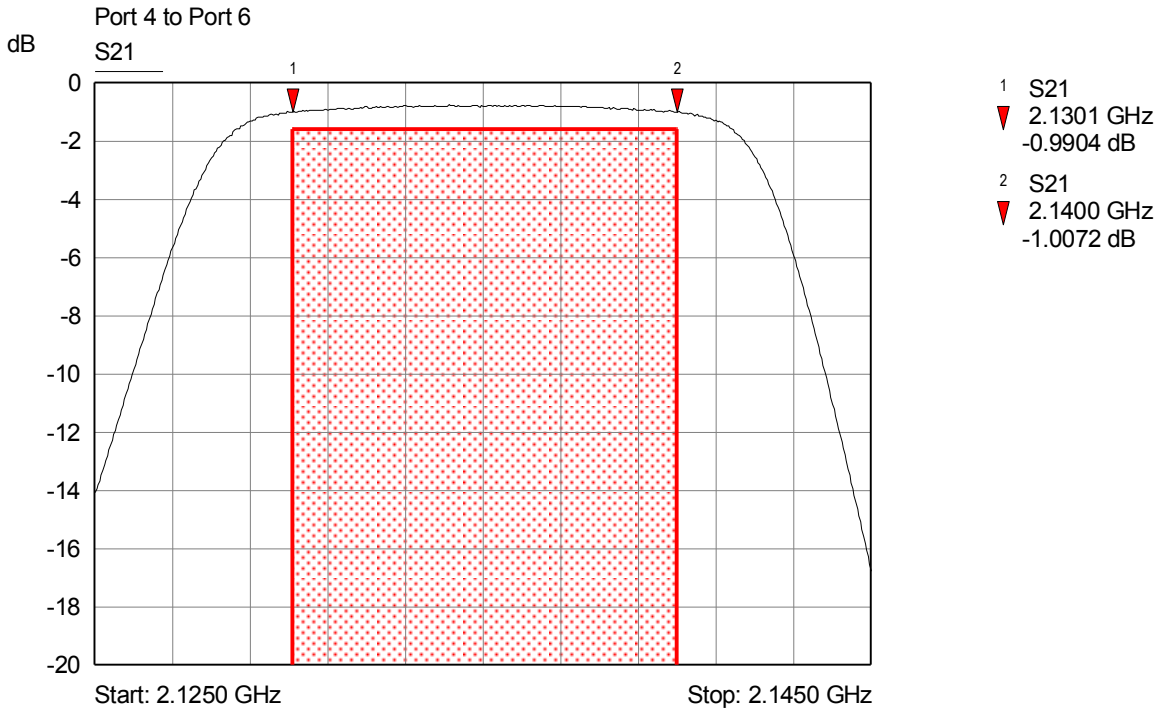

Port 4
VSWR
S11
2
1.9
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1
1
2
Start: 2.1250 GHz
Stop: 2.1450 GHz
1 S11
2.1301 GHz
1.1069 VSWR
2 S11
2.1400 GHz
1.1139 VSWR

Insertion loss:

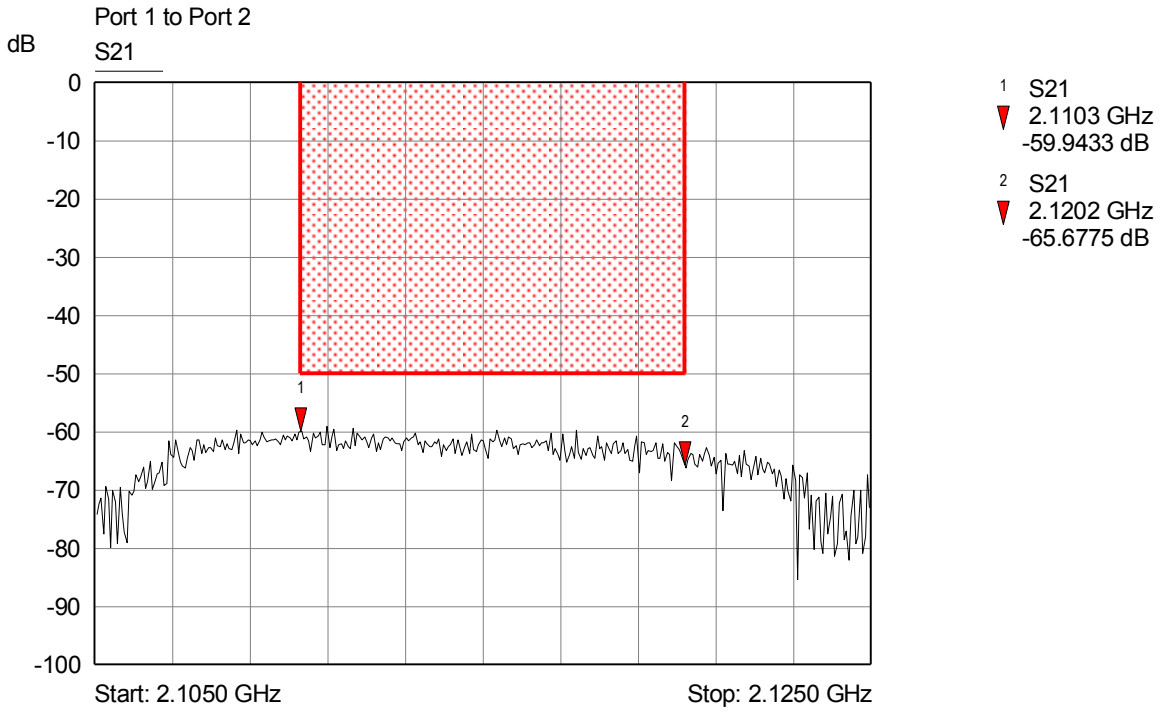


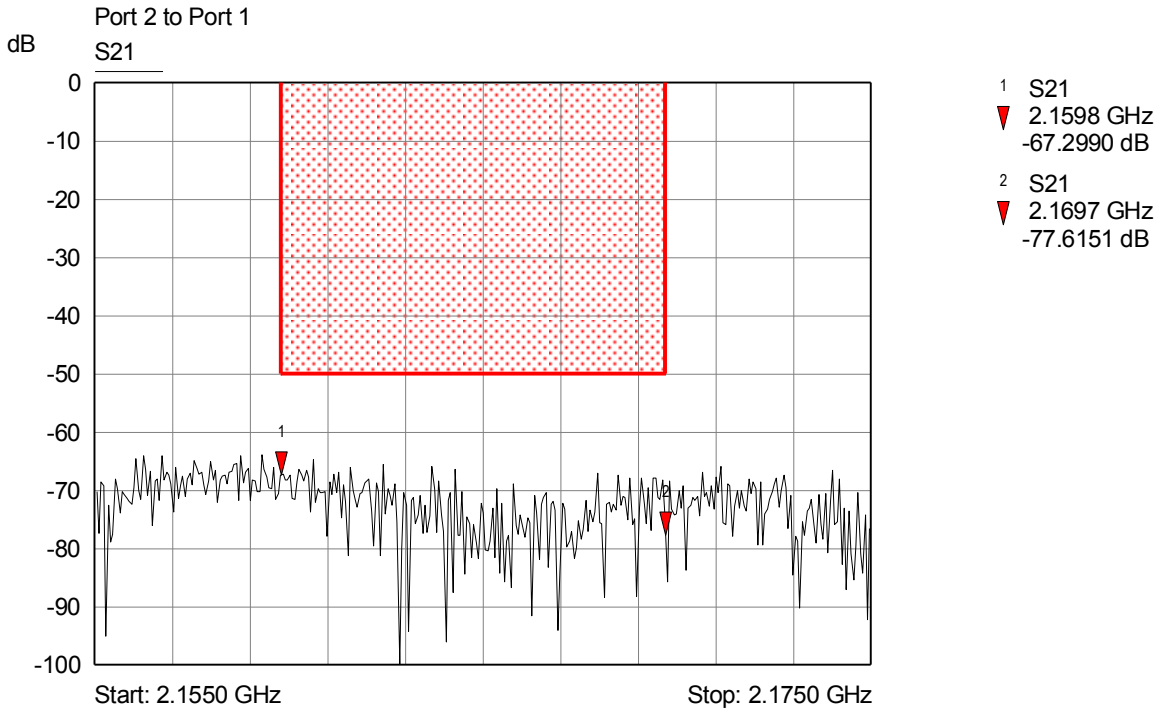


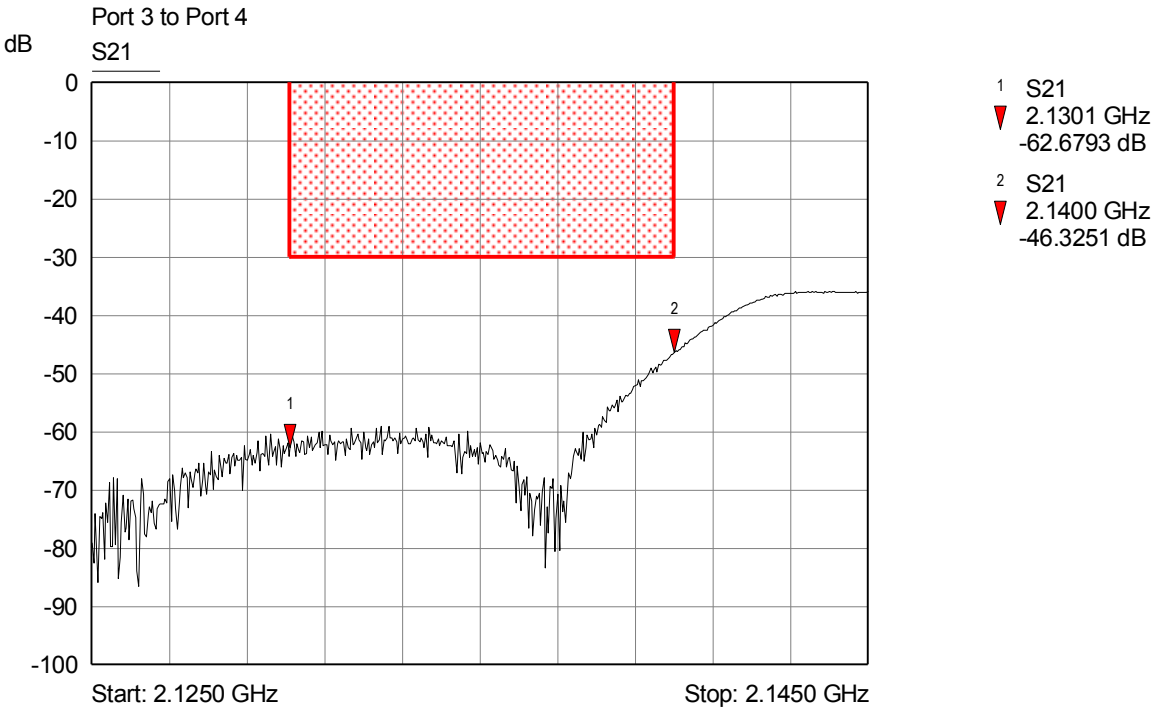

Port 3 to Port 6
dB
S21
0
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
1
2
Start: 2.1450 GHz
Stop: 2.1650 GHz
1 S21
2.1499 GHz
-1.0711 dB
2 S21
2.1598 GHz
-0.8810 dB

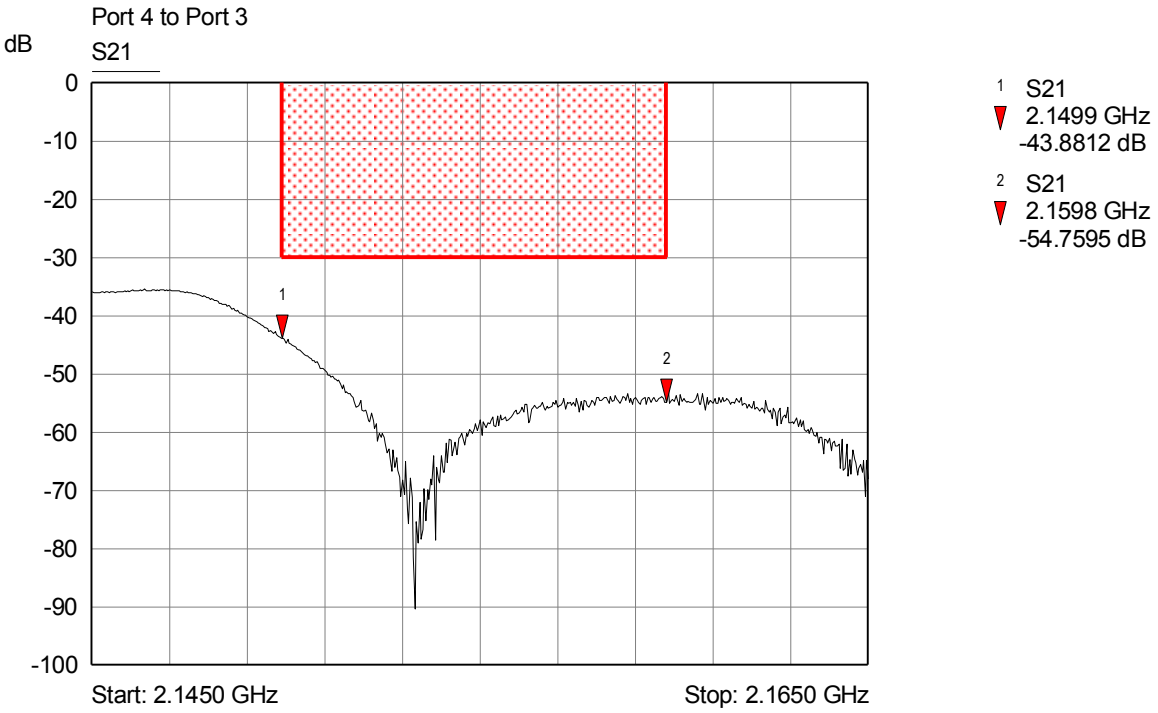

Port 4 to Port 6
dB
S21
0
-2
-4
-6
-8
-10
-12
-14
-16
-18
-20
1
2
Start: 2.1250 GHz
Stop: 2.1450 GHz
1 S21
2.1301 GHz
-0.9904 dB
2 S21
2.1400 GHz
-1.0072 dB

Isolation:


Port 1 to Port 2
S21
dB
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Start: 2.1050 GHz
Stop: 2.1250 GHz
1 S21
2.1103 GHz
-59.9433 dB
2 S21
2.1202 GHz
-65.6775 dB


Port 2 to Port 1
S21
dB
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Start: 2.1550 GHz
Stop: 2.1750 GHz
1 S21
2.1598 GHz
-67.2990 dB
2 S21
2.1697 GHz
-77.6151 dB


Port 3 to Port 4
S21
dB
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Start: 2.1250 GHz
Stop: 2.1450 GHz
1 S21
2.1301 GHz
-62.6793 dB
2 S21
2.1400 GHz
-46.3251 dB


Port 4 to Port 3
S21
dB
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
Start: 2.1450 GHz
Stop: 2.1650 GHz
1 S21
2.1499 GHz
-43.8812 dB
2 S21
2.1598 GHz
-54.7595 dB