Amphenol Broadband Solutions®

1.8 GHz BROADBAND REGAL STYLE NARROW BODY FACE PLATES

Amphenol Broadband Solutions now offers our new **1.8 GHz Series Face Plate** for future DOCSIS 4.0 networks. These face plates are a field upgradable solution to bandwidth expansion by simply replacing the tap plate instead of the entire tap. This face plate is designed specifically to fit Regal® horseshoe style housings in today networks.

Features & Benefits:

- ALT18XXXRFP Face Plate 2, 4, 8 dB Output
- Retrofit Legacy Taps to 1.8 GHz
- Installation Flexibility
- Full range of Values (4dB - 29dB)
- Optimized back case available when needed

ALT18XXXRFHP

Specifications

Parameter	Frequency MHz	ALT18204RFHT	ALT18208RFHP	ALT18211RFHP	ALT18214RFHP	ALT18217RFHP	ALT18220RFHP	ALT18223RFHP	ALT18226RFHP	ALT18RFH
					TYPICAL					(Back Housing)
Insertion Loss – In/Out in dB: Typical ± Tolerance	5		3.8 ± 0.5	3.1 ± 0.5	2.2 ± 0.5	1.4 ± 0.5	1.5 ± 0.5	1.1 ± 0.5	1.2 ± 0.5	
	10		3.8 ± 0.5	2.6 ± 0.5	1.3 ± 0.5	0.8 ± 0.5	0.9 ± 0.5	0.7 ± 0.5	0.8 ± 0.5	
	42		3.8 ± 0.5	2.4 ± 0.5	1.2 ± 0.5	0.7 ± 0.5	0.8 ± 0.5	0.7 ± 0.5	0.7 ± 0.5	
	258		3.8 ± 0.5	2.7 ± 0.5	1.4 ± 0.5	1.0 ± 0.5	1.0 ± 0.5	0.9 ± 0.5	0.9 ± 0.5	
	550		3.9 ± 0.5	3.4 ± 0.5	2.1 ± 0.5	1.7 ± 0.5	1.6 ± 0.5	1.6 ± 0.5	1.5 ± 0.5	
	750		4.0 ± 0.5	3.6 ± 0.5	2.3 ± 0.5	1.9 ± 0.5	1.7 ± 0.5	1.7 ± 0.5	1.6 ± 0.5	
	1002		4.1 ± 0.5	3.8 ± 0.5	2.3 ± 0.5	2.0 ± 0.5	1.9 ± 0.5	1.9 ± 0.5	1.7 ± 0.5	
	1218		4.5 ± 0.5	3.8 ± 0.5	2.3 ± 0.5	1.9 ± 0.5	1.8 ± 0.5	1.9 ± 0.5	1.7 ± 0.5	
	1400		4.8 ± 0.5	3.8 ± 0.5	2.7 ± 0.5	2.2 ± 0.5	2.0 ± 0.5	2.0 ± 0.5	1.9 ± 0.5	
	1600		4.9 ± 0.5	4.0 ± 0.5	2.8 ± 0.5	2.2 ± 0.5	1.8 ± 0.5	1.9 ± 0.5	2.0 ± 0.5	
	1800		5.0 ± 0.5	4.7 ± 0.5	3.7 ± 0.5	3.0 ± 0.5	2.6 ± 0.5	2.9 ± 0.5	2.7 ± 0.5	
Insertion Loss – In/Tap in dB: Typical ± Tolerance	5	3.6 ± 1.0	7.0 ± 1.0	12.5 ± 1.0	12.3 ± 1.0	14.4 ± 1.0	16.7 ± 1.0	19.8 ± 1.0	22.3 ± 1.0	
	10	3.5 ± 1.0	7.0 ± 1.0	11.7 ± 1.0	13.7 ± 1.0	16.4 ± 1.0	19.5 ± 1.0	22.3 ± 1.0	25.1 ± 1.0	
	42	3.4 ± 1.0	7.0 ± 1.0	11.1 ± 1.0	14.0 ± 1.0	16.6 ± 1.0	19.9 ± 1.0	22.8 ± 1.0	25.5 ± 1.0	
	258	3.6 ± 1.0	7.0 ± 1.0	11.0 ± 1.0	14.0 ± 1.0	16.7 ± 1.0	20.1 ± 1.0	22.9 ± 1.0	25.7 ± 1.0	
	550	3.6 ± 1.0	7.1 ± 1.0	11.0 ± 1.0	14.1 ± 1.0	17.1 ± 1.0	20.2 ± 1.0	23.1 ± 1.0	26.1 ± 1.0	
	750	3.8 ± 1.0	7.2 ± 1.0	11.1 ± 1.0	14.3 ± 1.0	17.3 ± 1.0	20.6 ± 1.0	23.5 ± 1.0	26.8 ± 1.0	
	1002	4.0 ± 1.2	7.3 ± 1.2	11.1 ± 1.2	14.4 ± 1.2	17.6 ± 1.2	21.0 ± 1.2	23.8 ± 1.2	27.0 ± 1.2	
	1218	4.3 ± 1.5	8.0 ± 1.5	10.9 ± 1.5	14.3 ± 1.5	17.6 ± 1.5	20.6 ± 1.5	23.6 ± 1.5	26.6 ± 1.5	
	1400	4.4 ± 1.5	8.5 ± 1.5	11.1 ± 1.5	14.2 ± 1.5	17.8 ± 1.5	20.5 ± 1.5	23.7 ± 1.5	26.3 ± 1.5	
	1600	4.8 ± 1.5	8.7 ± 1.5	11.5 ± 1.5	14.4 ± 1.5	18.1 ± 1.5	20.8 ± 1.5	24.0 ± 1.5	26.2 ± 1.5	
	1800	5.4 ± 1.5	8.8 ± 1.5	12.4 ± 1.5	14.6 ± 1.5	18.1 ± 1.5	20.3 ± 1.5	23.1 ± 1.5	25.3 ± 1.5	
					MINIMUM					
Return Loss – Input, Output in dB: Minimum	5–9	16	16	16	16	16	16	16	16	
	10–700	16	16	16	16	16	16	16	16	
	701–1800	13	13	13	13	13	13	13	13	
Return Loss – Tap in dB: Minimum	5–9	16	16	16	16	16	16	16	16	
	10–700	16	16	16	16	16	16	16	16	
	701–1800	16	16	16	16	16	16	16	16	
Isolation (Tap-Tap, Out-Tap) in dB: Minimum	5–10	18	18	18	18	18	18	18	18	
	11–1002	22	22	22	22	22	22	22	22	
	1003–1218	22	22	22	22	22	22	22	22	
	1219–1800	20	20	20	20	20	20	20	20	

General Information:

RFI	5-1002	120dB
	1003-1218	110dB
	1219-1794	100dB
Current Passing Capacity		90VAC/15A
HUM @ 10A, 15A	10-1218	≥65dB @ 10A, ≥60dB @ 15A
	1219-1794	≥60dB @ 10A, ≥55dB @ 15A
Surge Withstand Capacity		IEEE C62.41-1991-Cat B3,Combination Wave, 6KV, 3KA
Operating Temperature		-40°C ~ +60°C
Water Proof Test		15psi, IP67
Impedance		75ohm

- Tested under lab conditions with 36 mm pin length F adaptors at the KS port
- ATL18XXX series white face plates optimum performance is achieved only when deployed with vintage back cases called out in this tech note

Specifications

Parameter	Frequency MHz	ALT18408RFHT	ALT18411RFHP	ALT18414RFHP	ALT18417RFHP	ALT18420RFHP	ALT18423RFHP	ALT18426RFHP	ALT18429RFHP	ALT18RFH
					TYPICAL					(Back Housing)
Insertion Loss – In/Out in dB: Typical ± Tolerance	5		3.9 ± 0.5	3.1 ± 0.5	2.3 ± 0.5	1.0 ± 0.5	1.0 ± 0.5	1.3 ± 0.5	0.6 ± 0.5	
	10		3.5 ± 0.5	2.8 ± 0.5	1.3 ± 0.5	0.8 ± 0.5	0.8 ± 0.5	0.8 ± 0.5	0.6 ± 0.5	
	42		3.3 ± 0.5	2.7 ± 0.5	1.1 ± 0.5	0.7 ± 0.5	0.6 ± 0.5	0.6 ± 0.5	0.8 ± 0.5	
	258		3.6 ± 0.5	2.9 ± 0.5	1.2 ± 0.5	1.0 ± 0.5	0.9 ± 0.5	0.8 ± 0.5	1.0 ± 0.5	
	550		4.3 ± 0.5	3.5 ± 0.5	1.9 ± 0.5	1.6 ± 0.5	1.4 ± 0.5	1.4 ± 0.5	1.2 ± 0.5	
	750		4.8 ± 0.5	3.7 ± 0.5	2.0 ± 0.5	2.0 ± 0.5	1.8 ± 0.5	1.5 ± 0.5	1.5 ± 0.5	
	1002		4.5 ± 0.5	3.5 ± 0.5	1.9 ± 0.5	2.1 ± 0.5	1.9 ± 0.5	1.6 ± 0.5	1.6 ± 0.5	
	1218		4.3 ± 0.5	3.4 ± 0.5	1.9 ± 0.5	2 ± 0.5	1.8 ± 0.5	1.6 ± 0.5	2.0 ± 0.5	
	1400		4.6 ± 0.5	3.6 ± 0.5	2.1 ± 0.5	2.3 ± 0.5	2.1 ± 0.5	1.8 ± 0.5	2.2 ± 0.5	
	1600		4.8 ± 0.5	3.7 ± 0.5	2.4 ± 0.5	2.5 ± 0.5	2.2 ± 0.5	2.0 ± 0.5	2.4 ± 0.5	
	1800		5.6 ± 0.5	4.9 ± 0.5	3.3 ± 0.5	3.2 ± 0.5	3.0 ± 0.5	2.6 ± 0.5	2.5 ± 0.5	
Insertion Loss – In/Tap in dB: Typical ± Tolerance	5	7.2 ± 1.0	10.9 ± 1.0	14.0 ± 1.0	16.4 ± 1.0	19.7 ± 1.0	22.4 ± 1.0	22.7 ± 1.0	29.0 ± 1.0	
	10	7.0 ± 1.0	10.6 ± 1.0	14.0 ± 1.0	16.8 ± 1.0	20.2 ± 1.0	23.2 ± 1.0	25.5 ± 1.0	29.0 ± 1.0	
	42	6.8 ± 1.0	10.2 ± 1.0	13.5 ± 1.0	16.5 ± 1.0	19.7 ± 1.0	23.1 ± 1.0	25.6 ± 1.0	29.0 ± 1.0	
	258	6.9 ± 1.0	10.3 ± 1.0	13.5 ± 1.0	16.5 ± 1.0	19.7 ± 1.0	23.2 ± 1.0	25.7 ± 1.0	29.0 ± 1.0	
	550	7.1 ± 1.0	10.5 ± 1.0	13.5 ± 1.0	16.7 ± 1.0	19.9 ± 1.0	23.5 ± 1.0	25.8 ± 1.0	29.2 ± 1.0	
	750	7.2 ± 1.0	10.9 ± 1.0	14.0 ± 1.0	17.0 ± 1.0	20.4 ± 1.0	24.0 ± 1.0	26.3 ± 1.0	29.5 ± 1.0	
	1002	7.6 ± 1.2	11.4 ± 1.2	14.6 ± 1.2	17.5 ± 1.2	21.0 ± 1.2	24.4 ± 1.2	26.6 ± 1.2	29.5 ± 1.2	
	1218	8.0 ± 1.5	12.1 ± 1.5	15.3 ± 1.5	17.7 ± 1.5	21.1 ± 1.5	24.2 ± 1.5	26.8 ± 1.5	29.5 ± 1.5	
	1400	8.4 ± 1.5	12.5 ± 1.5	16.3 ± 1.5	17.8 ± 1.5	21.5 ± 1.5	24.1 ± 1.5	26.8 ± 1.5	29.5 ± 1.5	
	1600	9.0 ± 1.5	13.1 ± 1.5	16.6 ± 1.5	17.9 ± 1.5	21.6 ± 1.5	23.9 ± 1.5	26.7 ± 1.5	29.5 ± 1.5	
	1800	9.7 ± 1.5	14.2 ± 1.5	16.8 ± 1.5	18.3 ± 1.5	20.9 ± 1.5	23.1 ± 1.5	25.8 ± 1.5	29.5 ± 1.5	
					MINIMUM					
Return Loss – Input, Output in dB: Minimum	5–9	16	16	16	16	16	16	16	16	
	10–700	16	16	16	16	16	16	16	16	
	701–1800	13	13	13	13	13	13	13	13	
Return Loss – Tap in dB: Minimum	5–9	16	16	16	14	16	16	16	16	
	10–700	16	16	16	16	16	16	16	16	
	701–1800	16	16	16	16	16	16	16	16	
Isolation (Tap-Tap, Out-Tap) in dB: Minimum	5–10	18	18	18	17	18	18	18	18	
	11–1002	22	22	22	22	22	22	22	22	
	1003–1218	22	22	22	22	22	22	22	22	
	1219–1800	20	20	20	20	20	20	20	20	

General Information:

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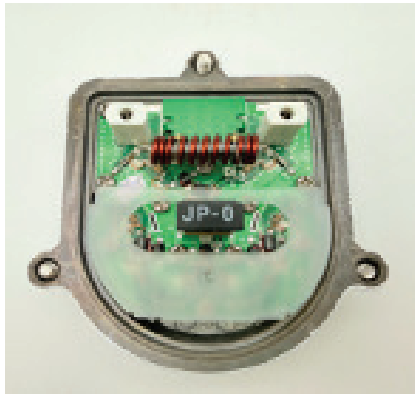
Surge Withstand Capacity		IEEE C62.41-1991-Cat B3,Combination Wave, 6KV, 3KA
Operating Temperature		-40°C ~ +60°C
Water Proof Test		15psi, IP67
Impedance		75ohm

- Tested under lab conditions with 36 mm pin length F adaptors at the KS port
- ATL18XXX series white face plates optimum performance is achieved only when deployed with vintage back cases called out in this tech note

Tap faceplates support plug in accessories for equalization, cable simulation and upstream attenuation.

Plug Ins Available	
JP-0	Jumper
ATTN-03	3 dB Attenuator
ATTN-06	6 dB Attenuator
ATTN-09	9 dB Attenuator
EQ-03	3 dB Equilizer
EQ-06	6 dB Equilizer
EQ-09	9 dB Equilizer



ALT18RFH

Replacement back case ALT18RFH 36mm Trim Notch for Optimum Performance to 1.8 GHz

Installation:

Removal and Installation procedure of this tap plate should be followed. Please pay special attention to those vintage housings w/bypass that do not comply to the electrical and mechanical specifications of this face plate. Refer to customer recommended practice regarding changing out entire tap.

Always remove existing drop connections prior to removing tap faceplate and in accordance with your company guidelines. Failure to do so could result in drop dammage.

Step 1

Using a 5/16" nut driver loosen faceplate screw

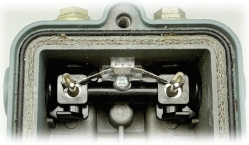
Step 2

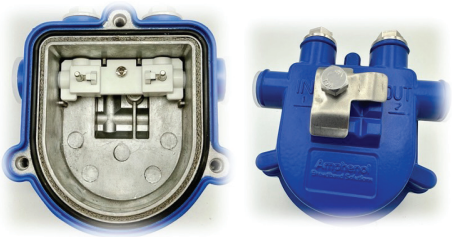
Remove old faceplate by pulling on screws

Step 3

Inspect housing for any water damage. Verify RFI gasket and rubber seal are in place

Step 3b





Housings with a "black bypass" are not compatible. Blue housings are not compatible

Step 4

Place new faceplate on housing and apply pressure evenly to seat into place

Step 5

Using a 5/16" nut driver tighten set screws to proper torques (30 in/lb)

Reconnect drops to new tap faceplate in accordance with your company installation policy.