Category
Amp Drop-Ins

1.2GHz 2x2 ADC Compatible Node Module

Our Star Power ISx1200 Is a direct replacement for ADC series ISX3030 and ISX3040 legacy nodes. It adds forward and return segmentation along with a 1.2GHz forward bandwidth and replaceable diplexers for future return/ forward mid splits.

Features

- 1.2GHz bandwidth
- Replaceable diplexers
- Forward segmentable: Right and left using zero jumpers (pads)
- Return segmentable : Right and left using zero jumpers (pads)
- High output design.
- Compatible with legacy amplifiers
- Amp is build using a high quality aluminum die case housing for improved heat dissipation
- Each port can be equalized using JXP Linear EQs (1dB increments)
- Qorvo GaAs / GaN technology for improved
- Built-in Power Supply
- Includes Forward and Return Lid configuration boards.

Part Number

SP - IS x - 1220 [x] [x] - TBBS

Band Split

A = 5-42/54-1218
B = 5-65/85-1218
C = 5-85/102-1218
D = 5-204/258-1218

Output

S= Standard GaAs
H= High Output GaN

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Specifications

Forward Path	Units	Specifications	
Optical Receiver			
Optical Wavelength	nm	1260 to 1620	
Optical Input Power Range	dBm	-6.0 to 1.0	
Optical Connector Type		SC/APC	
RF Frequency Range	MHz	40 to 1200	
Launch Amp			
RF Operational Bandwidth Forward	MHz	54/105 to 1220	
Flatness (in respect of tilt)	dB	+/- 1.0	
Internal Linear Tilt	dB	4.0	
Test Points (+/-1.0dB)	dB	-20	
Amplifier Technology (output hybrids)		Standard = GaAs / High Output = GaN	
Hybrid Gain Block Manufactuer		Qorvo	
Operational Gain (from FWD All input to Port outputs w/0pads)	dB	Standard = 35 / High Output = 35	
Return Loss	dB	16	
Analog Distortions			
Reference Level (Vo) Standard (18dB Linear Tilt)	dBmV	39/57 @ 54/1218MHz (Virtual Output)	
Reference Level (Vo) High Output (22dB Linear Tilt)	dBmV	39/61@ 54/1218MHz (Virtual Output)	
		Standard (GaAs)	High Output (GaN)
Hum Modulation	dB	71	71
CTB	dB	70	71
CSO	dB	62	64
Carrier to Noise	dB	52	51

Return Path	Units	Specifications
Operational Bandwidth Reverse	MHz	5-42, 5-65, 5-85, 5-204
Flatness	dB	+/- 0.5
Output Linear Tilt	dB	0 +/- 1.0
Port Impedance	ohms	75
Return Loss	dB	16
Gain w/Std Amp 1x, 2x and 4x	dB	5, 8 and 12
Gain w/High Gain Amp 1x, 2x and 4x	dB	11, 14 and 18

Electrical/Mechanical	Units	Specifications	
Max. AC Through Current (continuous)	Amp	10	
Max. AC Through Current (surge)	Amp	20	
Component DC Power Consumption (typical)		**24vdc**	**5vdc**
- Launch Amplifier SP - IS x Std	Amp	2.34	0.5
- Launch Amplifier SP - IS x High	Amp	2.74	0.5
- Optical Receiver	Amp	.480	0.5
- Optical Transmitter	Amp	.240	0.5
Power Supply DC Current Rating (Max)	Amp	4	1
Dimensions (Launch Amp)	inches / mm	16x5.75x3.5 / 406x146x89	
Weight (Launch Amp)	lbs / kg	5.6 / 2.54	

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Installation Notes ADC Star Power

- The Star Power MxISx-1200 ADC compatible amplifier, is a direct drop-in replacement for the ISx3000 series ADC/C-COR Node amp modules.
- The forward JXP configuration section at the input from receiver in the lid, can be configured with JXP Jumpers, 0dB Pads, EQs, or attenuator pads.
- The reverse (return) JXP configuration section can also be configured with JXP Jumpers, 0dB Pads, EQs, or attenuator pads.
- The reverse (return) input JXP socket can be configured with JXP pads, or JXP return EQs.
- The Star Power MxISx-1200 compatible amp has an internal power supply which can supply power to the lid via the provided power harness. An optional redundant power supply can be placed in the lid and powered buy an optional redundant power harness thereby provident dual power.
- The Star Power MxISx-1200 ADC does not support the OEM's integrated network management/status monitoring capability.
- All Star Power MxISx-1200 ADC compatible amplifiers are field configurable as 1x1, 2x1, 1x2 or 2x2 Nodes.
- The technician can access all pad, EQ and fuse locations through access points in the lid. **Do not remove the lid** in normal operations.

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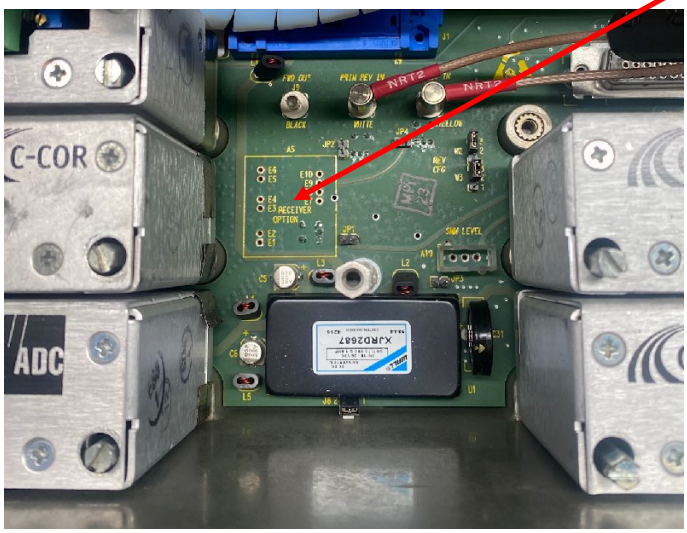
Housing Lid RF Configuration Board Replacements.

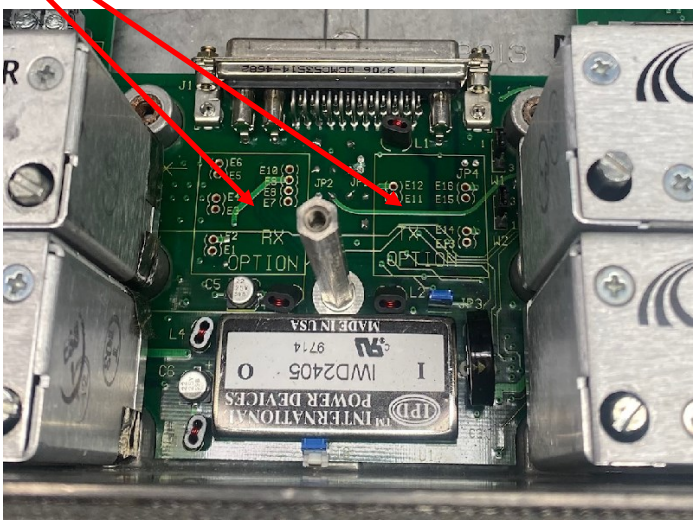
Step 1 Remove existing FR configuration boards.

REMOVE

870MHz Lid

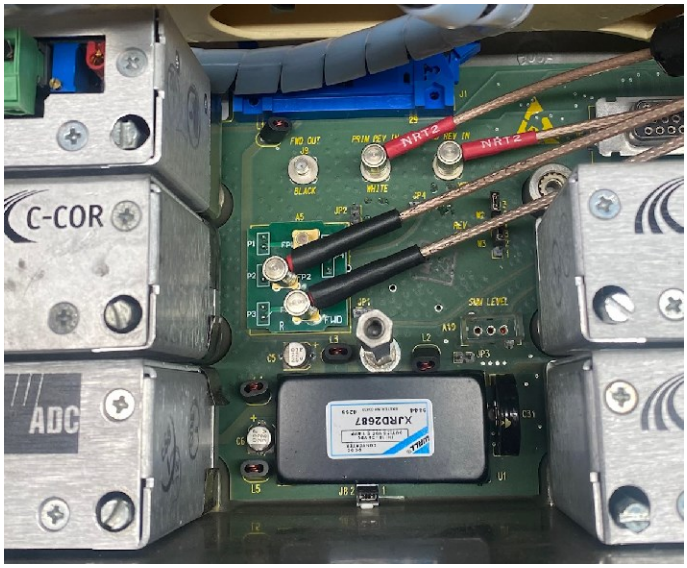


750MHz Lid

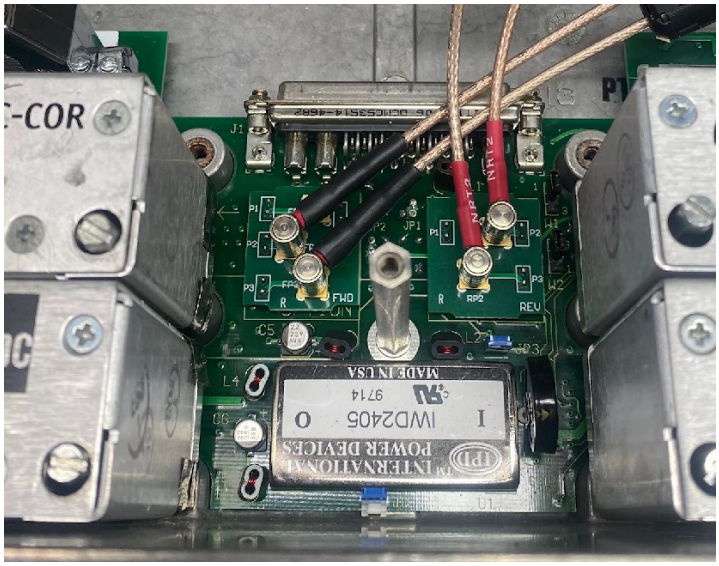


Step 2 Add new RF break out boards and RF cables

870MHz Lid



750MHz Lid



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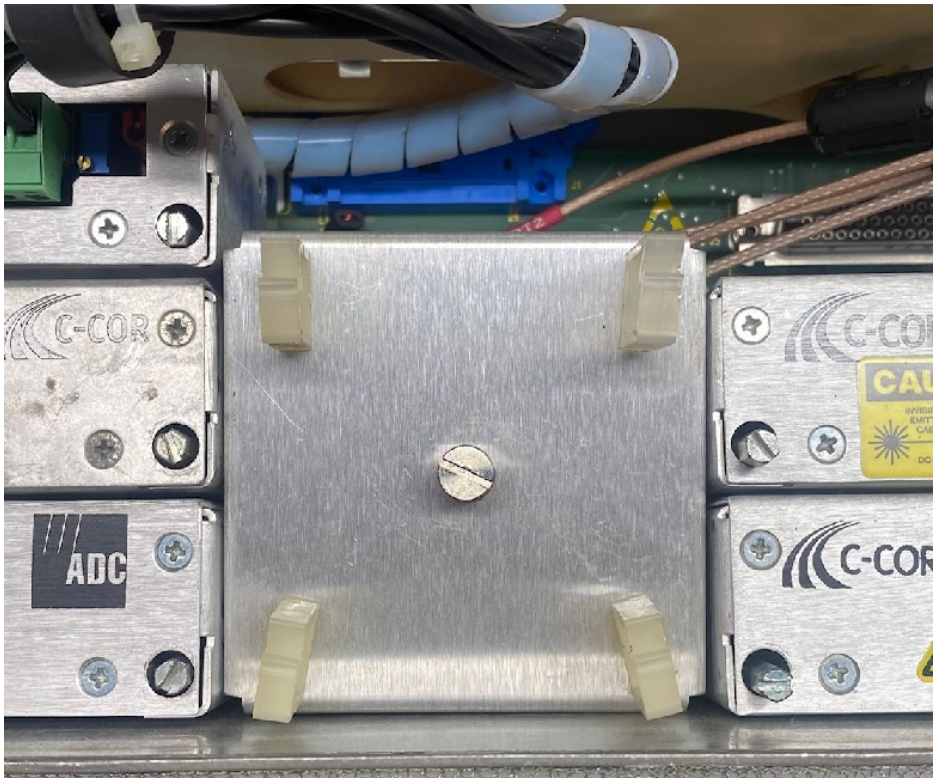
Housing Lid RF Configuration Board Replacements.

Step 1 Replace RF configuration board hold own and fiber tray management module.



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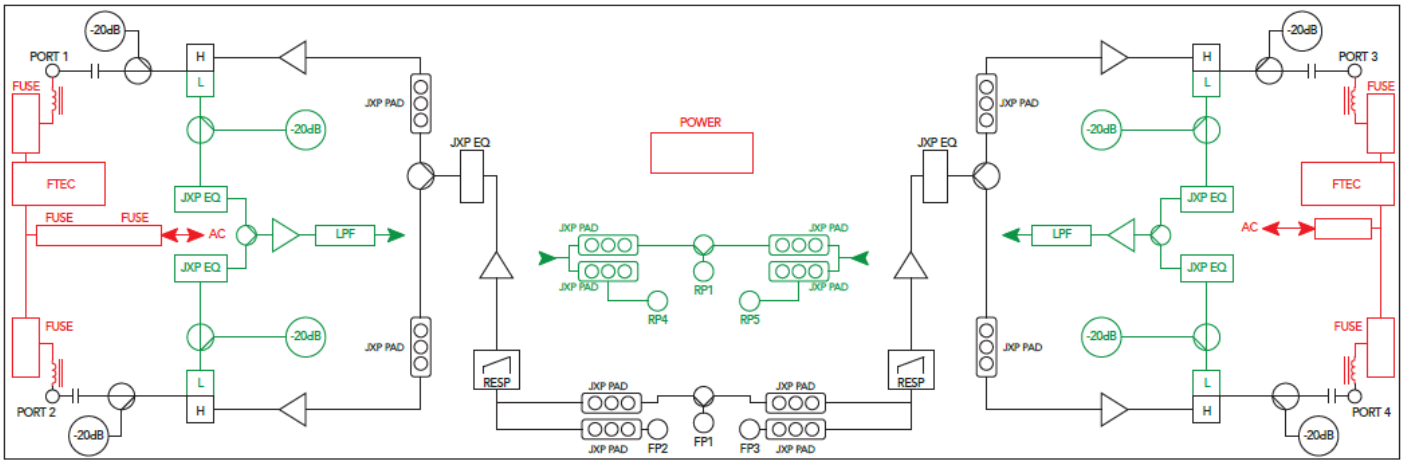
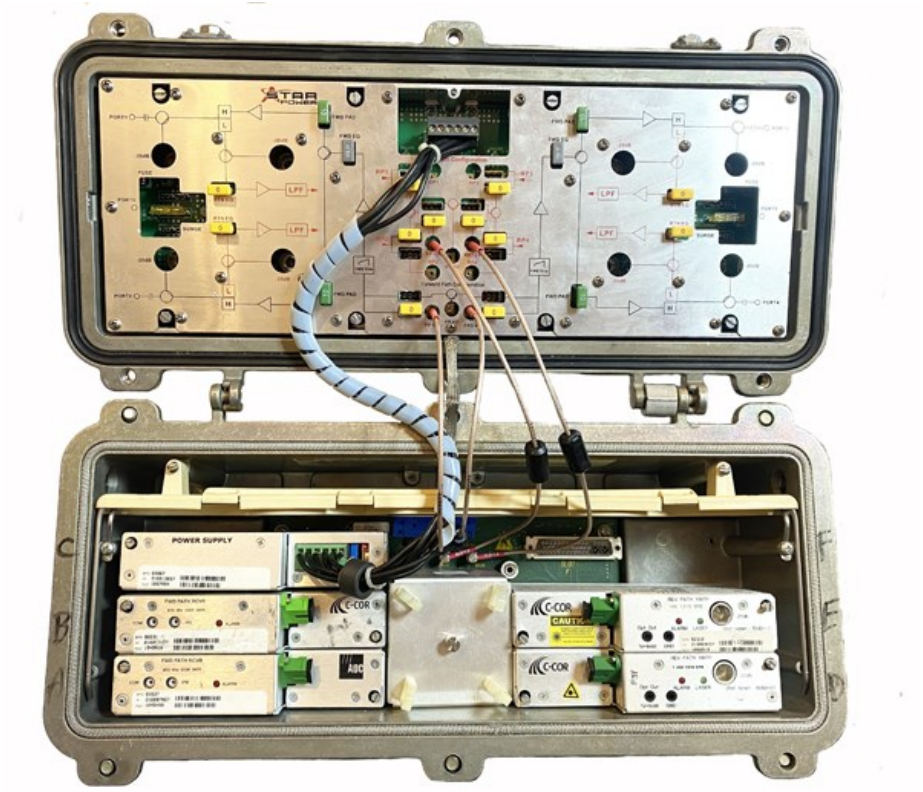
PRELIMINARY BOARD LAYOUT - ISX 1200





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Amp Module Accessories

Star Power "Tall Green RoHS" JXP Attenuator / Pad

Part Number	Description
GM-PAD-1.2G-00TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 0 dB
GM-PAD-1.2G-01TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 1 dB
GM-PAD-1.2G-02TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 2 dB
GM-PAD-1.2G-03TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 3 dB
GM-PAD-1.2G-04TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 4 dB
GM-PAD-1.2G-05TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 5 dB
GM-PAD-1.2G-06TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 6 dB
GM-PAD-1.2G-07TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 7 dB
GM-PAD-1.2G-08TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 8 dB
GM-PAD-1.2G-09TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 9 dB
GM-PAD-1.2G-10TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 10 dB
GM-PAD-1.2G-11TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 11 dB
GM-PAD-1.2G-12TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 12 dB
GM-PAD-1.2G-13TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 14 dB
GM-PAD-1.2G-15TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 15 dB
GM-PAD-1.2G-16TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 16 dB
GM-PAD-1.2G-17TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 17 dB
GM-PAD-1.2G-18TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 18 dB
GM-PAD-1.2G-19TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 19 dB
GM-PAD-1.2G-20TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 20 dB
GM-PAD-1.2G-75TBBS	SP, 1.218 GHz Attenuator Pad (Green RoHS), 75 ohm terminator

Star Power "Grey" 1218MHz Linear Equalizers

Part Number	Description
EQL-1220MHz-01TBBS	SP, EQL-1220MHz-01 (1510053-001), 1.22GHz JXP Linear Equalizer, 1 dB
EQL-1220MHz-02TBBS	SP, EQL-1220MHz-02 (1510053-002), 1.22GHz JXP Linear Equalizer, 2 dB
EQL-1220MHz-03TBBS	SP, EQL-1220MHz-03 (1510053-003), 1.22GHz JXP Linear Equalizer, 3 dB
EQL-1220MHz-04TBBS	SP, EQL-1220MHz-04 (1510053-004), 1.22GHz JXP Linear Equalizer, 4 dB
EQL-1220MHz-05TBBS	SP, EQL-1220MHz-05 (1510053-005), 1.22GHz JXP Linear Equalizer, 5 dB
EQL-1220MHz-06TBBS	SP, EQL-1220MHz-06 (1510053-006), 1.22GHz JXP Linear Equalizer, 6 dB
EQL-1220MHz-07TBBS	SP, EQL-1220MHz-07 (1510053-007), 1.22GHz JXP Linear Equalizer, 7 dB
EQL-1220MHz-08TBBS	SP, EQL-1220MHz-08 (1510053-008), 1.22GHz JXP Linear Equalizer, 8 dB
EQL-1220MHz-09TBBS	SP, EQL-1220MHz-09 (1510053-009), 1.22GHz JXP Linear Equalizer, 9 dB
EQL-1220MHz-10TBBS	SP, EQL-1220MHz-10 (1510053-010), 1.22GHz JXP Linear Equalizer, 10 dB
EQL-1220MHz-11TBBS	SP, EQL-1220MHz-11 (1510053-011), 1.22GHz JXP Linear Equalizer, 11 dB
EQL-1220MHz-12TBBS	SP, EQL-1220MHz-12 (1510053-012), 1.22GHz JXP Linear Equalizer, 12 dB
EQL-1220MHz-13TBBS	SP, EQL-1220MHz-13 (1510053-013), 1.22GHz JXP Linear Equalizer, 13 dB
EQL-1220MHz-14TBBS	SP, EQL-1220MHz-14 (1510053-014), 1.22GHz JXP Linear Equalizer, 14 dB

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Amp Module Accessories (cont.)

Star Power JXP Style Return Equalizers

Part Number	Description
JXP-R85-00TBBS	JXP Style 85MHz Reverse EQ, 1.38" (35mm) Tall, 00dB
JXP-R85-01TBBS	JXP Style 85MHz Reverse EQ, 1.38" (35mm) Tall, 01dB
JXP-R85-02TBBS	JXP Style 85MHz Reverse EQ, 1.38" (35mm) Tall, 02dB
JXP-R85-03TBBS	JXP Style 85MHz Reverse EQ, 1.38" (35mm) Tall, 03dB
JXP-R85-04TBBS	JXP Style 85MHz Reverse EQ, 1.38" (35mm) Tall, 04dB
JXP-R85-05TBBS	JXP Style 85MHz Reverse EQ, 1.38" (35mm) Tall, 05dB
JXP-R85-06TBBS	JXP Style 85MHz Reverse EQ, 1.38" (35mm) Tall, 06dB
JXP-R85-07TBBS	JXP Style 85MHz Reverse EQ, 1.38" (35mm) Tall, 07dB
JXP-R85-08TBBS	JXP Style 85MHz Reverse EQ, 1.38" (35mm) Tall, 08dB
JXP-R85-09TBBS	JXP Style 85MHz Reverse EQ, 1.38" (35mm) Tall, 09dB
JXP-R85-10TBBS	JXP Style 85MHz Reverse EQ, 1.38" (35mm) Tall, 10dB
JXP-R85-11TBBS	JXP Style 85MHz Reverse EQ, 1.38" (35mm) Tall, 11dB
JXP-R85-12TBBS	JXP Style 85MHz Reverse EQ, 1.38" (35mm) Tall, 12dB

Part Number	Description
JXP-R42-00TBBS	JXP Style 42MHz Reverse EQ, 1.38" (35mm) Tall, 00dB
JXP-R42-01TBBS	JXP Style 42MHz Reverse EQ, 1.38" (35mm) Tall, 01dB
JXP-R42-02TBBS	JXP Style 42MHz Reverse EQ, 1.38" (35mm) Tall, 02dB
JXP-R42-03TBBS	JXP Style 42MHz Reverse EQ, 1.38" (35mm) Tall, 03dB
JXP-R42-04TBBS	JXP Style 42MHz Reverse EQ, 1.38" (35mm) Tall, 04dB
JXP-R42-05TBBS	JXP Style 42MHz Reverse EQ, 1.38" (35mm) Tall, 05dB
JXP-R42-06TBBS	JXP Style 42MHz Reverse EQ, 1.38" (35mm) Tall, 06dB
JXP-R42-07TBBS	JXP Style 42MHz Reverse EQ, 1.38" (35mm) Tall, 07dB
JXP-R42-08TBBS	JXP Style 42MHz Reverse EQ, 1.38" (35mm) Tall, 08dB
JXP-R42-09TBBS	JXP Style 42MHz Reverse EQ, 1.38" (35mm) Tall, 09dB
JXP-R42-10TBBS	JXP Style 42MHz Reverse EQ, 1.38" (35mm) Tall, 10dB
JXP-R42-11TBBS	JXP Style 42MHz Reverse EQ, 1.38" (35mm) Tall, 11dB
JXP-R42-12TBBS	JXP Style 42MHz Reverse EQ, 1.38" (35mm) Tall, 12dB