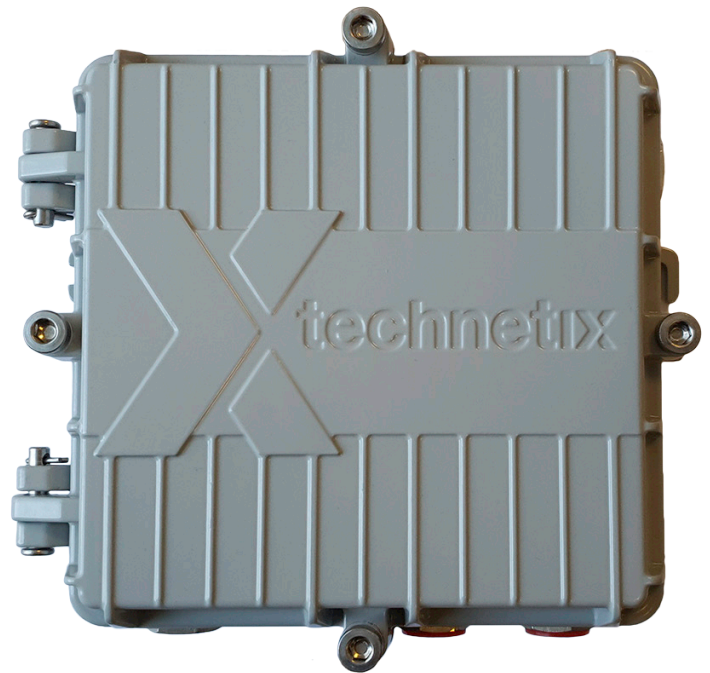# DBC-1200 lite

technetix

- **Fully DOCSIS 3.1 compatible amplifier with 1.2 GHz downstream and 204 MHz upstream**

- **Economical and cost-effective deployments**

- **Pluggable diplex filters**

- **Compact layout allowing deployment in any environment**

- **Low power consumption**

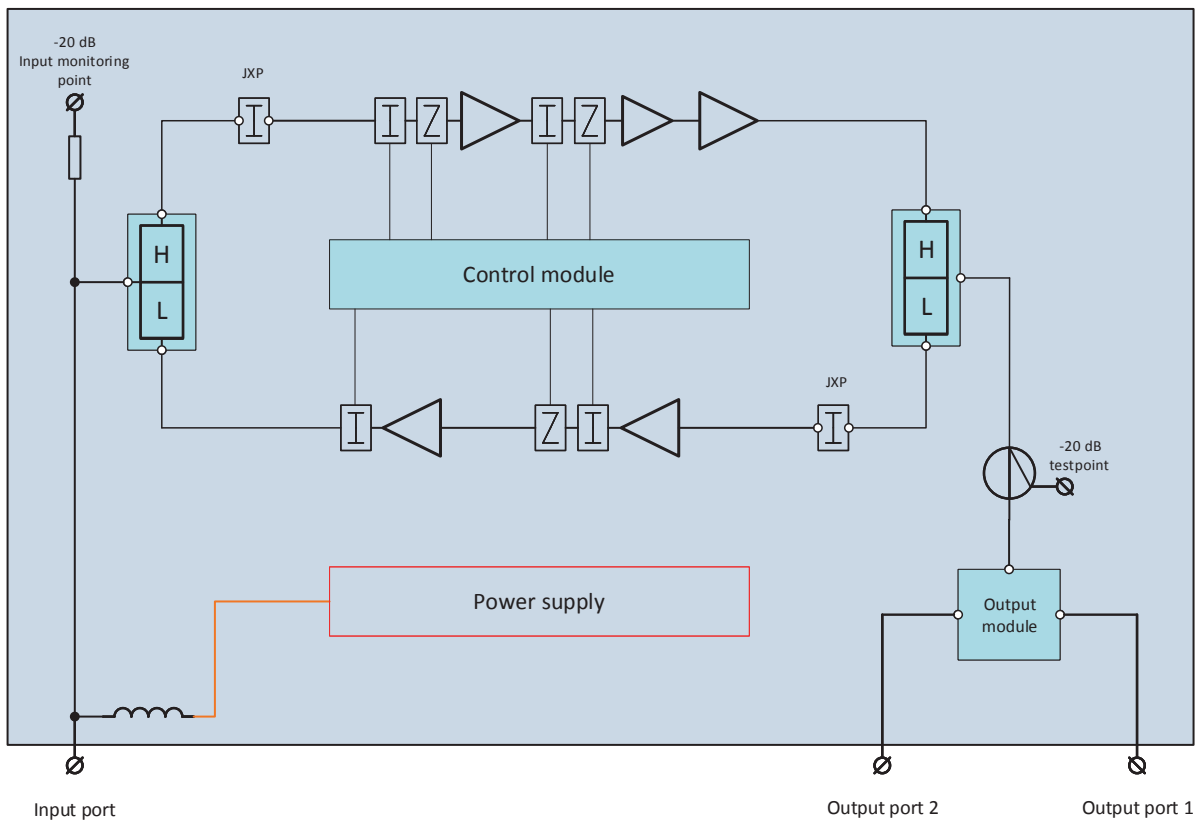- **Full digital control and set-up**

Overview

With high performance optical nodes, distribution and trunk amplifiers deployed in the market, the need for more cost- effective end stage amplifiers is becoming increasingly apparent. Driving 4K QAM is the goal for all cable operators in their HFC network areas, with operational efficiencies in mind.

Technetix has added the DBC-1200 lite to its DBx portfolio, giving operators the option to select a more cost-effective solution when modularity and flexibility are not required. The DBC-1200 lite's design is focused on compact design and a quick plug and play installation process. All existing DBx plug-ins and accessories are compatible with the DBC-1200 lite.

Block diagram RF configuration

RF amplifier specifications

Forward path

	DBC-1200 lite	Units	Notes
Pass band (dependent on diplex filter)	85-1218	MHz	
Active outputs	1		
Available outputs (with splitter)	2		
Frequency response 85-1218 MHz	±0.75	dB	1
Gain	44	dB	
Return loss	18	dB	2
Noise figure (with zero dB attenuation)	8	dB	
Operating output level Cenelec 42 channels flat - low power mode	110	dBµV	
Operating output level Cenelec 42 channels 8 dB tilt - low power mode	111	dBµV	
Operating output level Cenelec 42 channels flat - high power mode	114	dBµV	
Operating output level Cenelec 42 channels 8 dB tilt - high power mode	116	dBµV	
Operating output level IEC60827-3-1, 120x 8 MHz channel, 256 QAM 9 dB tilt - low power mode	109	dBµV	
Operating output level IEC60827-3-1, 120x 8 MHz channel, 256 QAM 9 dB tilt - high power mode	112	dBµV	
Gain control (electronic) pre-stage	0-20	dB	
EQ control (electronic) pre-stage	0-18	dB	4
Gain control (electronic) inter-stage	0-20	dB	
EQ control (electronic) inter-stage	0-15	dB	4
Input monitoring point	-20 ±1.5	dB	
Output test-points	-20 ±1	dB	

Reverse path

	DBC-1200 lite	Units	Notes
Pass band (dependent on diplex filter)	5-204	MHz	
Gain	25	dB	
Return loss	18	dB	2
Frequency response 5-204 MHz	±0.5	dB	
Noise figure (max)	6.5	dB	
Gain control (electronic)	0-20	dB	
EQ control (electronic)	0-17	dB	4

General specifications

	DBC-1200 lite		Notes
Hum modulation	-65 dBc at 1 A		3
Class of enclosure	IP68 IEC 60529 2.1 am1 - 2 metres under water		
ESD	4kV EN 61000-4-2:2008		
Surge protection	6kV IEEE C62.41 CAT C3		
EMC	EN 50083-2:2012		
Safety	EN 60728-11:2011		
Test points	F-Male		
Operating voltage	35-65 VAC ~, up to 90 VAC ~, 110-230 VAC~		
Power consumption	High power mode 16 Low power mode 13	W	
Operating temperature range	-40 to +65°	C	
Housing dimensions (metric)	214 x 176 x 78 mm	mm	
Coaxial connections	PG11 or 5/8˝		
Housing finish	Painted conductive chromate finish		
Impedance	75	Ω	
Equipment approval	CE/RoHS/FCC		

Notes

1	Aligned with 20 dB coaxial cable
2	@40 MHz, deduct 1.5 dB per octave (never worse than 12 dB)
3	No power passing RF ports
4	From 85 MHz to 1218 MHz

Order information

Item code	Description
19012464	DBC-1200 lite 1.2 GHz, 44 dB, 230 VAC 85/102 MHz diplex split
19012462	DBC-1200 lite 1.2 GHz, 44 dB, 65 VAC 85/102 MHz diplex split
19012463	DBC-1200 lite 1.2 GHz, 44 dB, 65 VAC 204/258 MHz diplex split

Accessories

Item code	Description
19008513	65/85 MHz diplexer
19008514	85/105 MHz diplexer
19008515	204/258 MHz diplexer
19012967	85-102 MHz diplexer with 5 dB attenuation
19009966	85-102 MHz diplexer
19005719	DIRECTIONAL COUPLER, 8 dB, 1.2 GHz
19005720	DIRECTIONAL COUPLER, 12 dB, 1.2 GHz
19005718	SPLITTER 2-WAY, 3.5/3.5 dB, 1.2 GHz