



- **Flexi-split/zero guard band technology**
- **Downstream 54-1800 MHz**
- **Upstream 12-684 MHz**
- **Less than 6 watts power consumption**
- **8k QAM over the entire transmission spectrum**



Overview

The DNA eliminates the need for diplex filters, the upstream is already 684 MHz and the downstream increases to 1800 MHz. The DNx 1.8 GHz is compatible with full duplex DOCSIS (FDx), extended spectrum DOCSIS (ESD) and frequency division duplexing (FDD). This low power amplifier (< 6 Watt) is the ideal building block for a distributed gain architecture (DGA), as well as for use in existing networks as a booster amplifier. It is the perfect fit for every network operator looking to achieve the DOCSIS 4.0 standard.

Additional features

- Simple to use for installers, with minimal training required
- No upgrades needed for future split changes
- Power consumption is reduced by 40% compared with traditional networks
- Operates at a lower temperature, so has a longer lifespan with lower operating costs as there is less need for repairs
- 8k QAM over the entire transmission spectrum



Specifications

Parameter		MHz	Min	Typ	Max	Unit	Details	Notes
Frequency range		12 - 1794				MHz		
Impedance				75		Ω		
Gain	DS gain	54		1.1		dB		
		200		3.7		dB		
		470		6.9		dB		
		865		10.9		dB		
		1006		12.2		dB		
		1218		14.8		dB		
		1400		17.3		dB		
		1600		19.1		dB		
	1794		19.8		dB			
	US gain	12		0.6		dB		
		40		1.6		dB		
		200		4.0		dB		
		396		6.4		dB		
		470		7.2		dB		
684			8.5		dB			
Gain tolerance		12 - 1600			1.0	dB		
		1600 - 1794			1.5	dB		
Return loss	All ports	12 - 1700	14.0			dB		
		1700 - 1794	12.0			dB		
Noise figure	DS	54		20.0		dB		
		1794		14.0		dB		
	US	12		22.0		dB		
		684		16.0		dB		
Input range channel power	DS	258 - 1218	6.0	12~22	25.0	dBmV	Full QAM channel load 258-1218 MHz	1
	US	12 - 204	6.0	12~26	30.0	dBmV	Full QAM channel load 12-204 MHz	1
Input range channel power	DS	258 - 1800	6.0	10~16	19.0	dBmV	Full QAM channel load 258-1800 MHz	1
	US	12 - 684	6.0	12~22	26.0	dBmV	Full QAM channel load 12-684 MHz	1
Power consumption					6	Watt	42-90 AC block (not a sine wave)	
AC bypass capacity and input					15	A		
Surge protection	All ports				6	kV	IEEE C62.41 CAT C3	
HUM modulation			-60			dBc	Measured at 15 A	
Connectors	In/out						KS 5/8-female	
Enclosure IP rating							IP68	
Weight				0.9(1.98)		kg(lbs)		
Temperature range	Operating		-40(-40)		+65(+149)	°C(°F)		
	Storage		-40(-40)		+85(+185)	°C(°F)		
	Spec			+25(+77)		°C(°F)		2

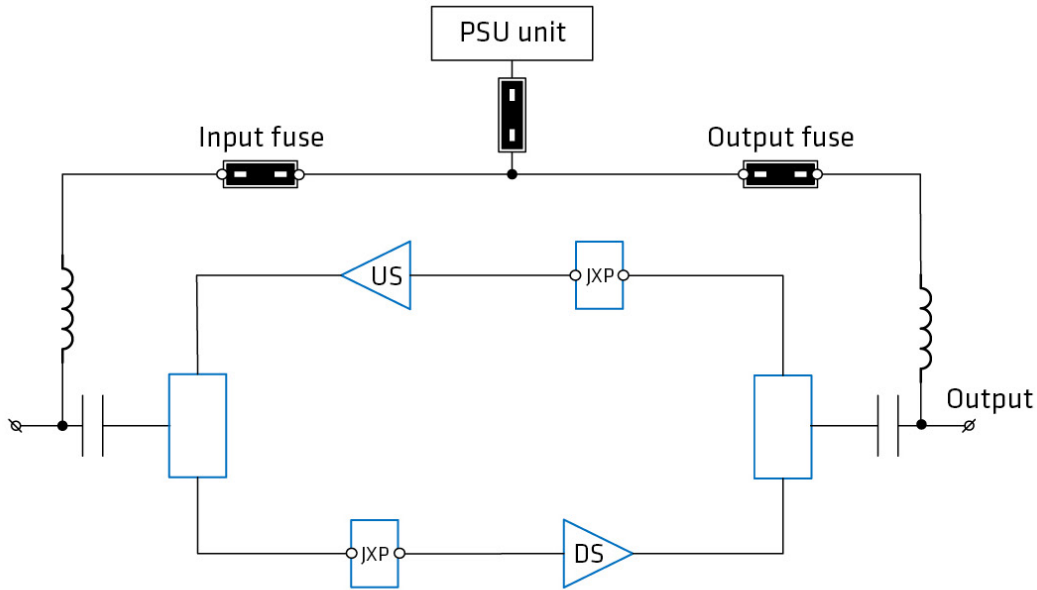
Notes

- 1 | Typical value is the optimal input level per 6 MHz channel for best performance.
- 2 | Specs are optimised and aligned at room temperature

Ordering information

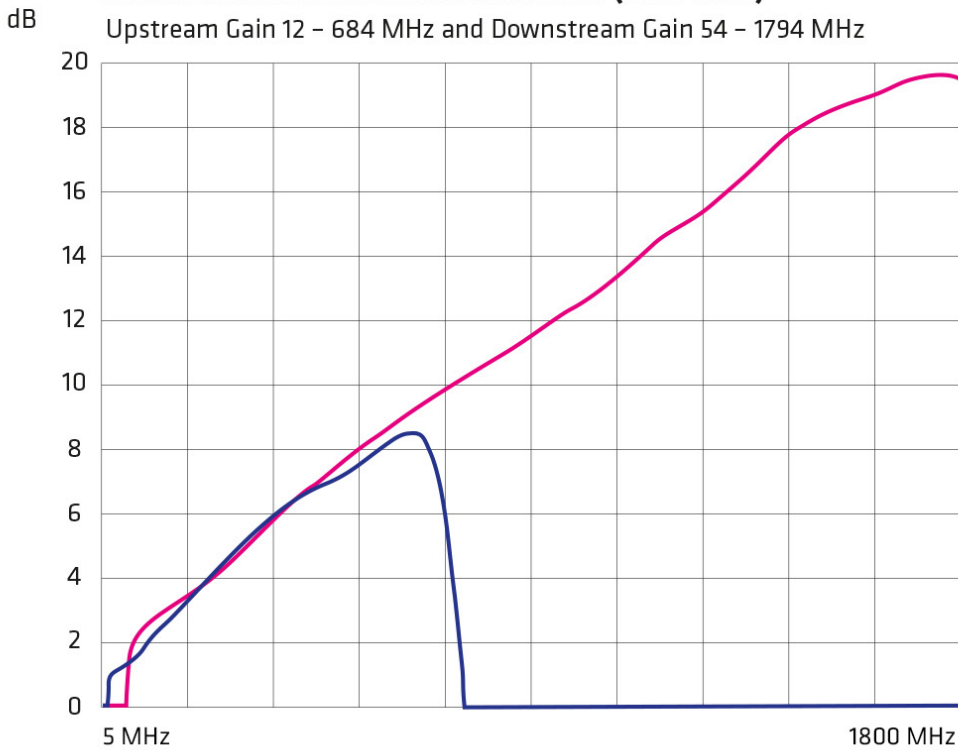
Item number	Item code
19013579	DNA-1800

DNA-1800 block diagram



Direction Neutral Gain Measurements (DNA-1800)

Upstream Gain 12 - 684 MHz and Downstream Gain 54 - 1794 MHz



DNA-1800 mechanical drawing

