

Public Safety BDA

Product Catalog



Technical Specifications

P/N:02711D.38		TETRA
Frequency Range	Uplink	380-385 MHz (adjustable)
	Downlink	390-395 MHz (adjustable)
Number of Sub-bands		1
Bandwidth (per sub-band)		200kHz-5MHz/200kHz (adjustable)
Max. Gain	Uplink	75±3 dB
	Downlink	80±3 dB
Manual Gain Control		31 dB in step of 1 dB
Automatic Gain Control		≥ 20 dB
Gain Flatness (per sub-band)		≤ ±3.5 dB (peak-to-peak)
Max. Input Power Without Damage		-10 dBm
Output Power	Uplink	23±2 dBm
	Downlink	27±2 dBm
Out of Band Gain	1.6≤f_offset_CW<5.0 MHz	≤20 dB
Spurious Emission	9KHz-1GHz	≤ -36dBm
	1GHz-12.75GHz	≤ -30dBm
ACRR	±10/20MHz	≤-36dBc/30KHz
	±20/40MHz	≤-40dBc/30KHz
EVM		≤ 8%
Frequency Stability		≤ ±0.01 ppm
Noise Figure		≤ 8 dB
VSWR		≤ 1.5
System Delay		≤ 15 μs
RF Connector		N-Female
Impedance		50 Ω
Power Supply	Input	AC 110/ 220 V, 50/ 60 Hz
	Output	-
Power Consumption		40 W
Dimensions		430*365*130mm
Weight		≤ 7 kgs
IP Rating		IP65
Operating Temperature		-10 °C to 50 °C
NMS	Local	Via RJ45
	Remote	Via Cloud-based NMS (optional)

Technical specifications are subject to change without prior notice.



DMR Band-adjustable Digital BDA (Bi-directional Amplifier)

Model: 02711D (P/N:02711D.45)

Product Features

- Robust security, applied in critical communication for public safety.
- Fine-grained control is achieved through individual sub-band activation/deactivation.
- Intelligent algorithms effectively mitigate uplink interference.
- Independent gain control further optimizes performance.
- Self-control mechanisms minimize interference during new base station deployments.
- Cloud-based NMS facilitates remote control and monitoring.

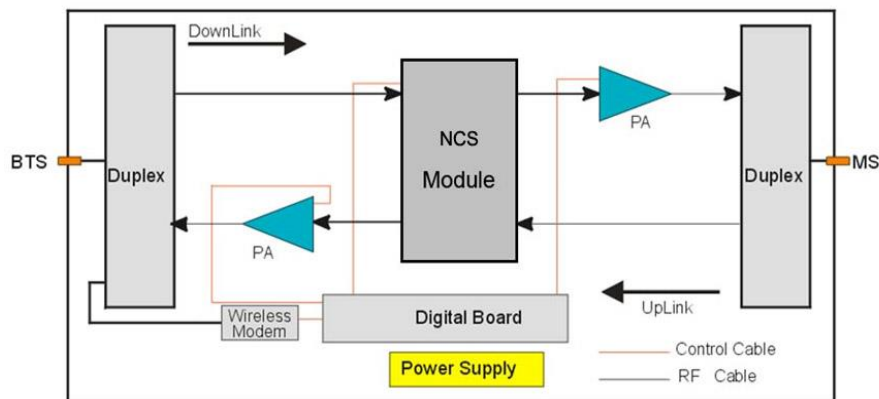


Application Scenario

Typical sites: public safety, utility, police, firefighter, mining, airport, metro, oil&gas, and more.



Block Diagram



Technical specifications are subject to change without prior notice.



Technical Specifications

P/N:02711D.45		DMR
Frequency Range	Uplink	450-455MHz (adjustable)
	Downlink	460-465MHz (adjustable)
Number of Sub-bands		1
Bandwidth (per sub-band)		200kHz-5MHz/200kHz (adjustable)
Max. Gain	Uplink	75±3 dB
	Downlink	80±3 dB
Manual Gain Control		31 dB in step of 1 dB
Automatic Gain Control		≥ 20 dB
Gain Flatness (per sub-band)		≤ ±3.5 dB (peak-to-peak)
Max. Input Power Without Damage		-10 dBm
Output Power	Uplink	23±2 dBm
	Downlink	27±2 dBm
Out of Band Gain	1.6≤f_offset_CW<5.0 MHz	≤20 dB
Spurious Emission	9KHz-1GHz	≤ -36dBm
	1GHz-12.75GHz	≤ -30dBm
ACRR	±10/20MHz	≤-36dBc/30KHz
	±20/40MHz	≤-40dBc/30KHz
EVM		≤ 8%
Frequency Stability		≤ ±0.01 ppm
Noise Figure		≤ 8 dB
VSWR		≤ 1.5
System Delay		≤ 15 μs
RF Connector		N-Female
Impedance		50 Ω
Power Supply	Input	AC 110/ 220 V, 50/ 60 Hz
	Output	-
Power Consumption		40 W
Dimensions		430*365*130mm
Weight		≤ 7 kgs
IP Rating		IP65
Operating Temperature		-10 °C to 50 °C
NMS	Local	Via RJ45
	Remote	Via Cloud-based NMS (optional)

Technical specifications are subject to change without prior notice.



VHF Band-adjustable Digital BDA (Bi-directional Amplifier)

Model: 02711D (P/N:02711D.15)

Product Features

- Robust security, applied in critical communication for public safety.
- Fine-grained control is achieved through individual sub-band activation/deactivation.
- Intelligent algorithms effectively mitigate uplink interference.
- Independent gain control further optimizes performance.
- Self-control mechanisms minimize interference during new base station deployments.
- Cloud-based NMS facilitates remote control and monitoring.

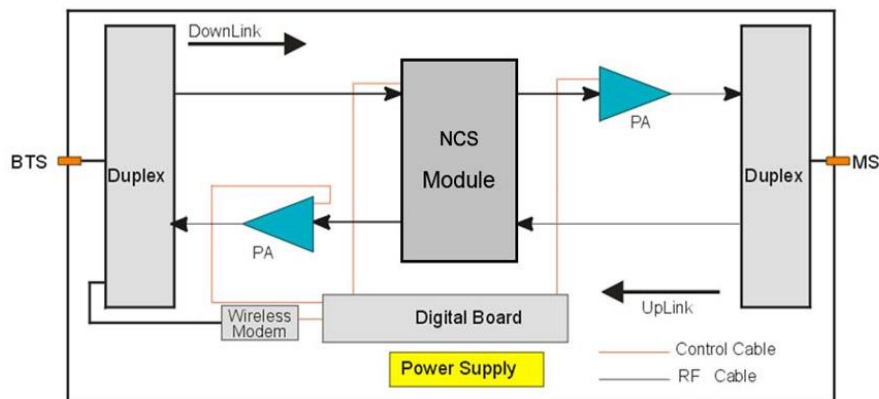


Application Scenario

Typical sites: public safety, utility, police, firefighter, mining, airport, metro, oil&gas, and more.



Block Diagram



Technical specifications are subject to change without prior notice.



Technical Specifications

P/N:02711D.15		VHF
Frequency Range	Uplink	150-152 MHz (adjustable)
	Downlink	160-162 MHz (adjustable)
Number of Sub-bands		1
Bandwidth (per sub-band)		200kHz-5MHz/200kHz (adjustable)
Max. Gain	Uplink	70±3 dB
	Downlink	75±3 dB
Manual Gain Control		31 dB in step of 1 dB
Automatic Gain Control		≥ 20 dB
Gain Flatness (per sub-band)		≤ ±3.5 dB (peak-to-peak)
Max. Input Power Without Damage		-10 dBm
Output Power	Uplink	23±2 dBm
	Downlink	27±2 dBm
Out of Band Gain	1.6≤f_offset_CW<5.0 MHz	≤20 dB
Spurious Emission	9KHz-1GHz	≤ -36dBm
	1GHz-12.75GHz	≤ -30dBm
ACRR	±10/20MHz	≤-36dBc/30KHz
	±20/40MHz	≤-40dBc/30KHz
EVM		≤ 8%
Frequency Stability		≤ ±0.01 ppm
Noise Figure		≤ 8 dB
VSWR		≤ 1.5
System Delay		≤ 15 μs
RF Connector		N-Female
Impedance		50 Ω
Power Supply	Input	AC 110/ 220 V, 50/ 60 Hz
	Output	-
Power Consumption		40 W
Dimensions		430*365*130mm
Weight		≤ 7 kgs
IP Rating		IP65
Operating Temperature		-10 °C to 50 °C
NMS	Local	Via RJ45
	Remote	Via Cloud-based NMS (optional)

Technical specifications are subject to change without prior notice.



TETRA Band-adjustable Digital BDA (Bi-directional Amplifier)

Model: 04311D (P/N:04311D.38)

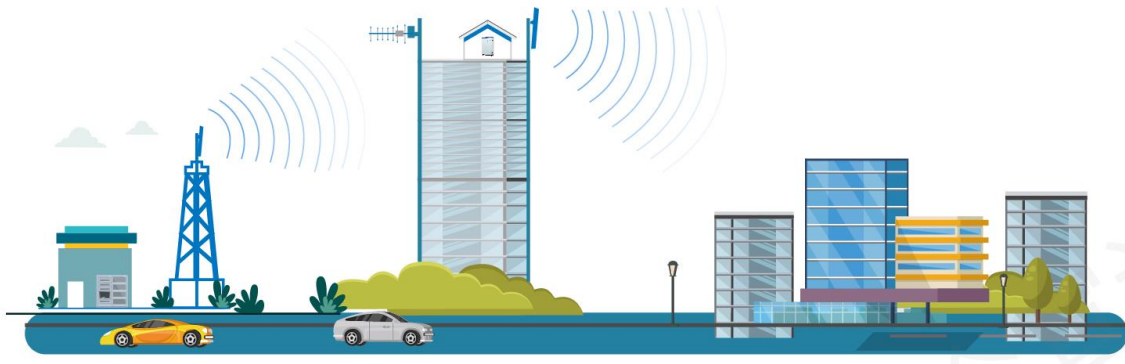
Product Features

- Robust security, applied in critical communication for public safety.
- Fine-grained control is achieved through individual sub-band activation/deactivation.
- Intelligent algorithms effectively mitigate uplink interference.
- Independent gain control further optimizes performance.
- Self-control mechanisms minimize interference during new base station deployments.
- Cloud-based NMS facilitates remote control and monitoring.

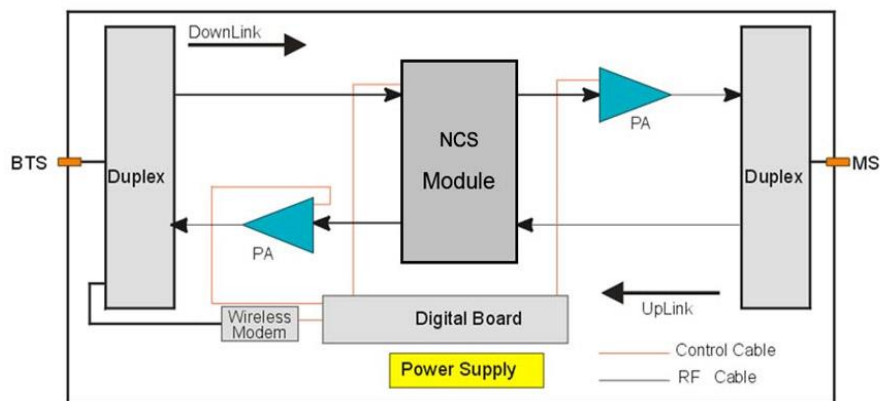


Application Scenario

Typical sites: public safety, utility, police, firefighter, mining, airport, metro, oil&gas, and more.



Block Diagram



Technical specifications are subject to change without prior notice.



Technical Specifications

P/N:04311D.38		TETRA
Frequency Range	Uplink	380-385 MHz (adjustable)
	Downlink	390-395 MHz (adjustable)
Number of Sub-bands		1
Bandwidth (per sub-band)		200kHz-5MHz/200kHz (adjustable)
Max. Gain	Uplink	85±3 dB
	Downlink	90±3 dB
Manual Gain Control		31 dB in step of 1 dB
Automatic Gain Control		≥ 20 dB
Gain Flatness (per sub-band)		≤ ±3.5 dB (peak-to-peak)
Max. Input Power Without Damage		-10 dBm
Output Power	Uplink	27±2 dBm
	Downlink	43±2 dBm
Out of Band Gain	1.6≤f_offset_CW<5.0 MHz	≤20 dB
Spurious Emission	9KHz-1GHz	≤ -36dBm
	1GHz-12.75GHz	≤ -30dBm
ACRR	±10/20MHz	≤-36dBc/30KHz
	±20/40MHz	≤-40dBc/30KHz
EVM		≤ 8%
Frequency Stability		≤ ±0.01 ppm
Noise Figure		≤ 8 dB
VSWR		≤ 1.5
System Delay		≤ 15 μs
RF Connector		N-Female
Impedance		50 Ω
Power Supply	Input	AC 110/ 220 V, 50/ 60 Hz
	Output	-
Power Consumption		200 W
Dimensions		750*530*440mm
Weight		≤ 28 kgs
IP Rating		IP65
Operating Temperature		-10 °C to 50 °C
NMS	Local	Via RJ45
	Remote	Via Cloud-based NMS (optional)

Technical specifications are subject to change without prior notice.



DMR Band-adjustable Digital BDA (Bi-directional Amplifier)

Model: 04311D (P/N:04311D.45)

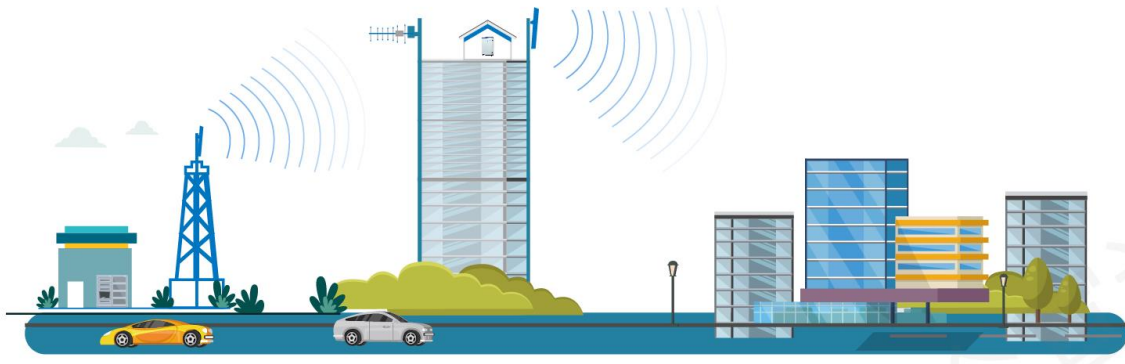
Product Features

- Robust security, applied in critical communication for public safety.
- Fine-grained control is achieved through individual sub-band activation/deactivation.
- Intelligent algorithms effectively mitigate uplink interference.
- Independent gain control further optimizes performance.
- Self-control mechanisms minimize interference during new base station deployments.
- Cloud-based NMS facilitates remote control and monitoring.

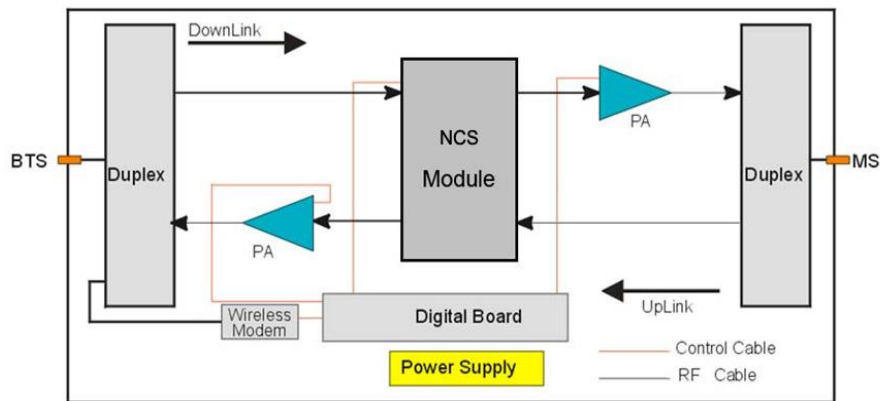


Application Scenario

Typical sites: public safety, utility, police, firefighter, mining, airport, metro, oil&gas, and more.



Block Diagram



Technical specifications are subject to change without prior notice.



Technical Specifications

P/N:04311D.45		DMR
Frequency Range	Uplink	450-455MHz (adjustable)
	Downlink	460-465MHz (adjustable)
Number of Sub-bands		1
Bandwidth (per sub-band)		200kHz-5MHz/200kHz (adjustable)
Max. Gain	Uplink	85±3 dB
	Downlink	90±3 dB
Manual Gain Control		31 dB in step of 1 dB
Automatic Gain Control		≥ 20 dB
Gain Flatness (per sub-band)		≤ ±3.5 dB (peak-to-peak)
Max. Input Power Without Damage		-10 dBm
Output Power	Uplink	27±2 dBm
	Downlink	43±2 dBm
Out of Band Gain	1.6≤f_offset_CW<5.0 MHz	≤20 dB
Spurious Emission	9KHz-1GHz	≤ -36dBm
	1GHz-12.75GHz	≤ -30dBm
ACRR	±10/20MHz	≤-36dBc/30KHz
	±20/40MHz	≤-40dBc/30KHz
EVM		≤ 8%
Frequency Stability		≤ ±0.01 ppm
Noise Figure		≤ 8 dB
VSWR		≤ 1.5
System Delay		≤ 15 μs
RF Connector		N-Female
Impedance		50 Ω
Power Supply	Input	AC 110/ 220 V, 50/ 60 Hz
	Output	
Power Consumption		200 W
Dimensions		750*530*440mm
Weight		≤ 28 kgs
IP Rating		IP65
Operating Temperature		-10 °C to 50 °C
NMS	Local	Via RJ45
	Remote	Via Cloud-based NMS (optional)

Technical specifications are subject to change without prior notice.



VHF Band-adjustable Digital BDA (Bi-directional Amplifier)

Model: 04311D (P/N:04311D.15)

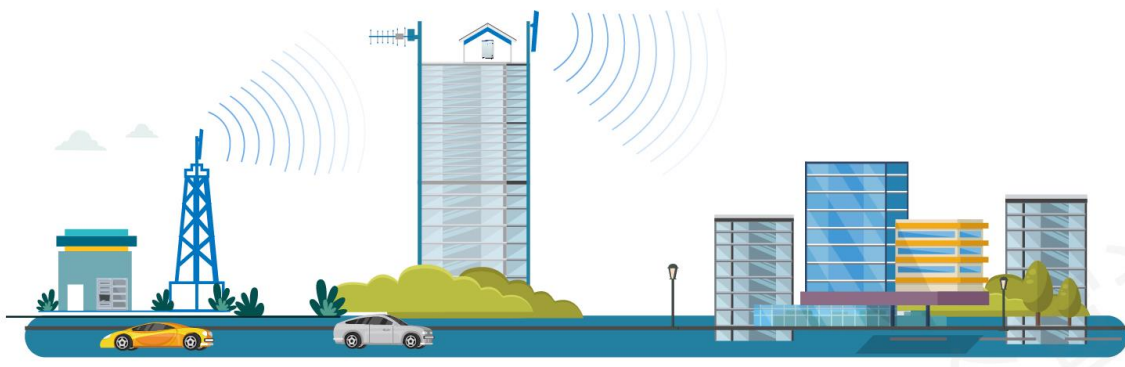
Product Features

- Robust security, applied in critical communication for public safety.
- Fine-grained control is achieved through individual sub-band activation/deactivation.
- Intelligent algorithms effectively mitigate uplink interference.
- Independent gain control further optimizes performance.
- Self-control mechanisms minimize interference during new base station deployments.
- Cloud-based NMS facilitates remote control and monitoring.

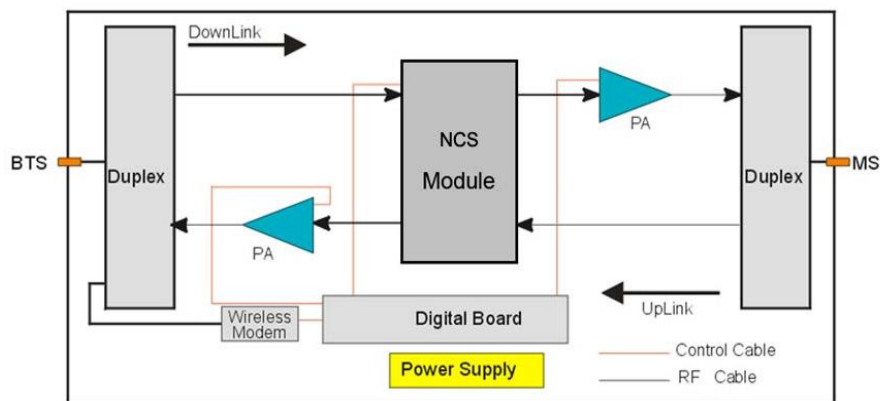


Application Scenario

Typical sites: public safety, utility, police, firefighter, mining, airport, metro, oil&gas, and more.



Block Diagram



Technical specifications are subject to change without prior notice.



Technical Specifications

P/N:04311D.15		VHF
Frequency Range	Uplink	150-152 MHz (adjustable)
	Downlink	160-162 MHz (adjustable)
Number of Sub-bands		1
Bandwidth (per sub-band)		200kHz-5MHz/200kHz (adjustable)
Max. Gain	Uplink	85±3 dB
	Downlink	90±3 dB
Manual Gain Control		31 dB in step of 1 dB
Automatic Gain Control		≥ 20 dB
Gain Flatness (per sub-band)		≤ ±3.5 dB (peak-to-peak)
Max. Input Power Without Damage		-10 dBm
Output Power	Uplink	27±2 dBm
	Downlink	43±2 dBm
Out of Band Gain	1.6≤f_offset_CW<5.0 MHz	≤20 dB
Spurious Emission	9KHz-1GHz	≤ -36dBm
	1GHz-12.75GHz	≤ -30dBm
ACRR	±10/20MHz	≤-36dBc/30KHz
	±20/40MHz	≤-40dBc/30KHz
EVM		≤ 8%
Frequency Stability		≤ ±0.01 ppm
Noise Figure		≤ 8 dB
VSWR		≤ 1.5
System Delay		≤ 15 μs
RF Connector		N-Female
Impedance		50 Ω
Power Supply	Input	AC 110/ 220 V, 50/ 60 Hz
	Output	-
Power Consumption		200 W
Dimensions		750*530*440mm
Weight		≤ 28 kgs
IP Rating		IP65
Operating Temperature		-10 °C to 50 °C
NMS	Local	Via RJ45
	Remote	Via Cloud-based NMS (optional)

Technical specifications are subject to change without prior notice.



Shenzhen Prevail Technology Co., Ltd.

1107, Zhongfutai Building, Guangke Road #1, Pingshan District, Shenzhen 518122, China

Tel: +86-755-26466353

Email: info@prevailtec.com

www.prevailtec.com

