



5G Digital Repeater

Product Catalog

5G NR Single Band-adjustable Digital Pico Repeater

Model: 52011D (P/N: 52011D.78)

Product Features:

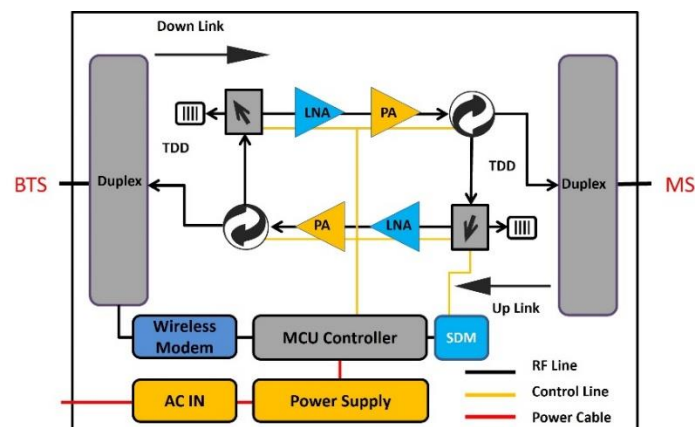
- Automated Synchronization: Ensures seamless network integration.
- NSA/SA Support: Compatible with both Non-Standalone and Standalone 5G networks.
- Flexible Bandwidth: Digital bandwidth adjustments allow for seamless operation across various frequency bands.
- Fine-grained Control: Individual sub-bands can be easily activated or deactivated for precise performance tuning.
- 5G Integrated Design: Facilitates easy and rapid deployment.
- Accurate Synchronization: Built-in 5G base band synchronous detection module (SDM) ensures precise timing with the donor base station.
- Remote/Local Management: NMS provides comprehensive remote and local control and monitoring capabilities.



Application Scenario:



Block Diagram:



Technical Specifications:

P/N: 52011D.78		N78 (3500)
Frequency Range	Uplink	3400 – 3800 MHz (adjustable)
	Downlink	3400 – 3800 MHz (adjustable)
Number of Sub-bands		1
Bandwidth per Sub-band		5 - 100MHz (adjustable)
Max. Gain	Uplink	75±2 dB
	Downlink	75±2 dB
Manual Gain Control		25 dB in step of 1 dB
Automatic Gain Control		≥ 25 dB
Gain Flatness (per sub-band)		≤ 5 dB
Max. Input Power Without Damage		0 dBm
Output Power	Uplink	20±1 dBm
	Downlink	20±1 dBm
Out of Band Gain	2.5≤f_offset_CW< 5.0 MHz	≤60 dB
	5.0≤f_offset_CW<10.0 MHz	≤45 dB
	10.0 MHz≤f_offset_CW	≤35 dB
Spurious Emission	9KHz-1GHz	≤ -36 dBm
	1GHz-12.75GHz	≤ -30 dBm
ACRR	±20/100MHz	≤-36dBc/30KHz
	±40/200MHz	≤-40dBc/30KHz
EVM		≤ 8%
Frequency Stability		≤ ±0.01 ppm
Noise Figure		≤ 6 dB @ Max. Gain
VSWR		≤ 1.8
System Delay		≤ 4.5 μs
RF Connector		N-Female
Impedance		50 Ω
Power Supply		Input: AC 100-240 V, 50/ 60Hz/Output: DC 12 V/ 3 A
Power Consumption		≤ 45 W
Dimensions		205*155*49mm
Weight		≤ 3.0 kgs
IP Rating		IP30
Operating Temperature		0 °C to 55 °C
NMS	Local	Via Type-C/Wi-Fi App
	Remote	Via Cloud-based NMS (optional)

Technical specification is subject to change without prior notice.

5G MIMO Single Band-adjustable Digital Pico Repeater

Model: 52012D (P/N: 52012D.78)

Product Features:

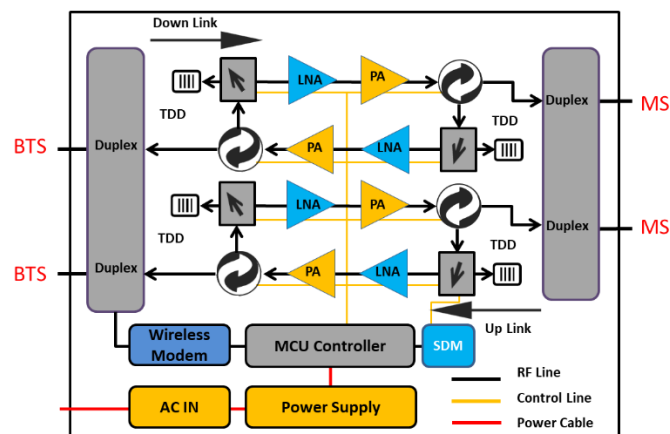
- Automated Synchronization: Ensures seamless network integration.
- NSA/SA Support: Compatible with both Non-Standalone and Standalone 5G networks.
- Flexible Bandwidth: Digital bandwidth adjustments allow for seamless operation across various frequency bands.
- Fine-grained Control: Individual sub-bands can be easily activated or deactivated for precise performance tuning.
- 5G Integrated Design: Facilitates easy and rapid deployment.
- Accurate Synchronization: Built-in 5G base band synchronous detection module (SDM) ensures precise timing with the donor base station.
- Remote/Local Management: NMS provides comprehensive remote and local control and monitoring capabilities.



Application Scenario:



Block Diagram:



Technical Specifications:

P/N: 52012D.78		N78 (3500)	
Frequency Range	Uplink	3400 – 3800 MHz (adjustable)	3400 – 3800 MHz (adjustable)
	Downlink	3400 – 3800 MHz (adjustable)	3400 – 3800 MHz (adjustable)
Number of Sub-bands		1-3	1-3
Bandwidth per Sub-band		5 - 100MHz (adjustable)	5 - 100MHz (adjustable)
Max. Gain	Uplink	75±2 dB	75±2 dB
	Downlink	75±2 dB	75±2 dB
Manual Gain Control		25 dB in step of 1 dB	
Automatic Gain Control		≥ 25 dB	
Gain Flatness (per sub-band)		≤ 5 dB	
Max. Input Power Without Damage		0 dBm	
Output Power	Uplink	20±1 dBm	20±1 dBm
	Downlink	20±1 dBm	20±1 dBm
Out of Band Gain	2.5≤f_offset_CW< 5.0 MHz	≤60 dB	≤60 dB
	5.0≤f_offset_CW<10.0 MHz	≤45 dB	≤45 dB
	10.0 MHz≤f_offset_CW	≤35 dB	≤35 dB
Spurious Emission	9KHz-1GHz	≤ -36 dBm	
	1GHz-12.75GHz	≤ -30 dBm	
ACRR	±20/100MHz	≤-36dBc/30KHz	≤-36dBc/30KHz
	±40/200MHz	≤-40dBc/30KHz	≤-40dBc/30KHz
EVM		≤ 3.5%	≤ 3.5%
Frequency Stability		≤ ±0.01 ppm	
Noise Figure		≤ 6 dB @ Max. Gain	
VSWR		≤ 1.8	
System Delay		≤ 4.5 μs	
RF Connector		N-Female	
Impedance		50 Ω	
Power Supply		Input: AC 100-240 V, 50/ 60Hz/Output: DC 12 V/ 3 A	
Power Consumption		≤ 45 W	
Dimensions		205*155*49mm	
Weight		≤ 3.0 kgs	
IP Rating		IP30	
Operating Temperature		0 °C to 55 °C	
NMS	Local	Via Type-C/Wi-Fi App	
	Remote	Via Cloud-based NMS (optional)	

Technical specification is subject to change without prior notice.

5G/4G Dual Band-adjustable Digital Pico Repeater

Model: 52012D (P/N: 52012D.783)

Product Features:

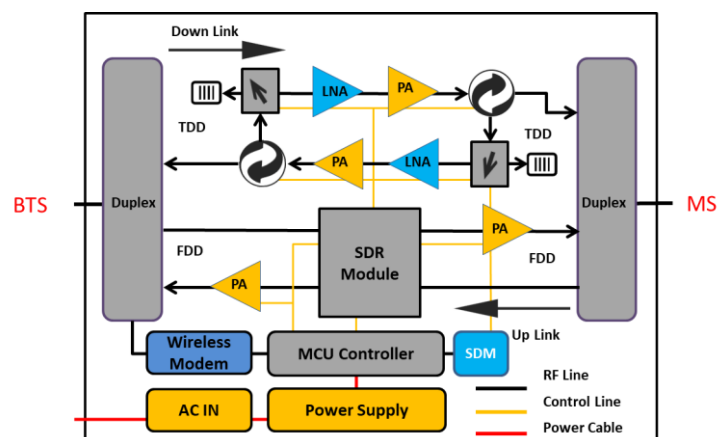
- Automated Synchronization: Ensures seamless network integration.
- NSA/SA Support: Compatible with both Non-Standalone and Standalone 5G networks.
- Flexible Bandwidth: Digital bandwidth adjustments allow for seamless operation across various frequency bands.
- Fine-grained Control: Individual sub-bands can be easily activated or deactivated for precise performance tuning.
- 5G Integrated Design: Facilitates easy and rapid deployment.
- Accurate Synchronization: Built-in 5G base band synchronous detection module (SDM) ensures precise timing with the donor base station.
- Remote/Local Management: NMS provides comprehensive remote and local control and monitoring capabilities.



Application Scenario:



Block Diagram:



Technical Specifications:

P/N: 52012D.783		B3 (1800)	N78 (3500)
Frequency Range	Uplink	1710-1785 MHz (adjustable)	3400-3800 MHz (adjustable)
	Downlink	1805-1880 MHz (adjustable)	3400-3800 MHz (adjustable)
Number of Sub-bands		1	1
Bandwidth per Sub-band		0.2 - 20MHz (adjustable)	5-100 MHz (adjustable)
Max. Gain	Uplink	75±2 dB	75±2 dB
	Downlink	75±2 dB	75±2 dB
Manual Gain Control		25 dB in step of 1 dB	
Automatic Gain Control		≥ 25 dB	
Gain Flatness (per sub-band)		≤ ±2.5 dB (peak-to-peak)	
Max. Input Power Without Damage		0 dBm	
Output Power	Uplink	20±1 dBm	20±1 dBm
	Downlink	20±1 dBm	20±1 dBm
Out of Band Gain	2.5≤f_offset_CW<5.0 MHz	≤60 dB	--
	5.0≤f_offset_CW<10.0 MHz	≤45 dB	≤45 dB
	10.0 MHz≤f_offset_CW	≤35 dB	≤35 dB
Spurious Emission	9KHz-1GHz	≤ -36 dBm	
	1GHz-12.75GHz	≤ -30 dBm	
ACRR	±20/100MHz	≤-36dBc/30KHz	
	±40/200MHz	≤-40dBc/30KHz	
EVM		≤ 8%	≤ 3.5%
Frequency Stability		≤ ±0.01 ppm	
Noise Figure		≤ 6 dB @ Max. Gain	
VSWR		≤ 1.8	
System Delay		≤ 4.5 μs	
RF Connector		N-Female	
Impedance		50 Ω	
Power Supply		Input: AC 100-240 V, 50/ 60Hz/Output: DC 12 V/ 3 A	
Power Consumption		≤ 45 W	
Dimensions		205*155*49mm	
Weight		≤ 3.0 kgs	
IP Rating		IP30	
Operating Temperature		0 °C to 55 °C	
NMS	Local	Via Type-C/Wi-Fi App	
	Remote	Via Cloud-based NMS (optional)	

Technical specification is subject to change without prior notice.

5G Band-adjustable Digital Repeater

Model: 53711D(P/N:53711D.78)

Product Features:

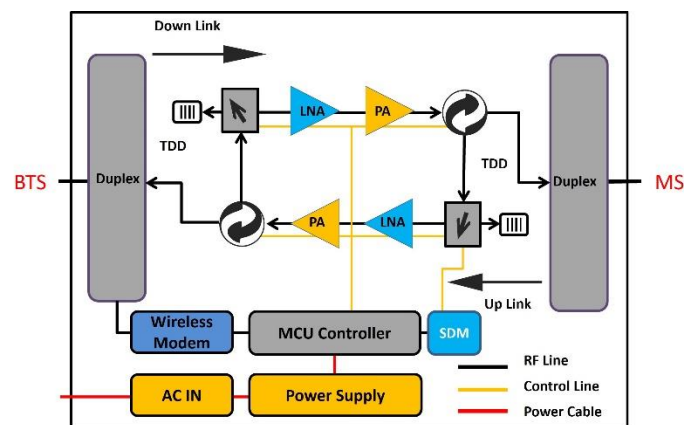
- Automated Synchronization: Ensures seamless network integration.
- NSA/SA Support: Compatible with both Non-Standalone and Standalone 5G networks.
- Flexible Bandwidth: Digital bandwidth adjustments allow for seamless operation across various frequency bands.
- Fine-grained Control: Individual sub-bands can be easily activated or deactivated for precise performance tuning.
- 5G Integrated Design: Facilitates easy and rapid deployment.
- Accurate Synchronization: Built-in 5G base band synchronous detection module (SDM) ensures precise timing with the donor base station.
- Remote/Local Management: NMS provides comprehensive remote and local control and monitoring capabilities.



Application Scenario:



Block Diagram:



Technical Specifications:

P/N: 53711D.78		N78
Frequency Range	Uplink	3300 - 3600 MHz (adjustable)
	Downlink	3300 - 3600 MHz (adjustable)
Number of Sub-bands		1
Bandwidth per Sub-band		5 - 100 MHz (adjustable)
Max. Gain	Uplink	85±2 dB
	Downlink	85±2 dB
Manual Gain Control		31 dB in step of 1 dB
Automatic Gain Control		≥ 20 dB
Gain Flatness (per sub-band)		≤ ±3 dB (peak-to-peak)
Max. Input Power Without Damage		0 dBm
Output Power	Uplink	27±1 dBm
	Downlink	37±1 dBm
Out of Band Gain	2.5≤f_offset_CW< 5.0 MHz	--
	5.0≤f_offset_CW<10.0 MHz	≤45 dB
	10.0 MHz≤f_offset_CW	≤35 dB
Spurious Emission	9kHz~1GHz	≤ -36dBm
	1GHz~12.75GHz	≤ -30dBm
ACRR	±100MHz	≤-36dBc/30KHz
	±200MHz	≤-40dBc/30KHz
EVM		≤ 3.5%
Frequency Stability		≤ ±0.01 ppm
Noise Figure		≤ 6 dB
VSWR		≤ 1.5
System Delay		≤ 1.5 μs
RF Connector		N-Female
Impedance		50 Ω
Power Supply		AC 110/ 220 V, 50/ 60 Hz
Power Consumption		320 W
Dimensions		450*360*205 mm
Weight		≤ 20 kg
IP Rating		IP65
Operating Temperature		-25 to 55 °C
NMS	Local	Via RJ45/Wi-Fi App
	Remote	Via Cloud-based NMS (optional)

Technical specification is subject to change without prior notice.

5G NR Dual Band-adjustable Digital Repeater

Model: 54012D (P/N: 54012D.7841)

Product Features:

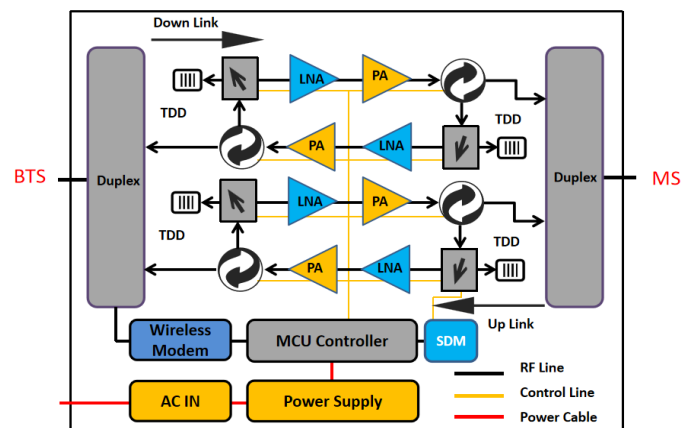
- Automated Synchronization: Ensures seamless network integration.
- NSA/SA Support: Compatible with both Non-Standalone and Standalone 5G networks.
- Flexible Bandwidth: Digital bandwidth adjustments allow for seamless operation across various frequency bands.
- Fine-grained Control: Individual sub-bands can be easily activated or deactivated for precise performance tuning.
- 5G Integrated Design: Facilitates easy and rapid deployment.
- Accurate Synchronization: Built-in 5G base band synchronous detection module (SDM) ensures precise timing with the donor base station.
- Remote/Local Management: NMS provides comprehensive remote and local control and monitoring capabilities.



Application Scenario:



Block Diagram:



Technical Specifications:

P/N: 54012D.7841		N41 (2500)	N78 (3500)
Frequency Range	Uplink	2500 - 2690 MHz (adjustable)	3400 - 3600 MHz (adjustable)
	Downlink	2500 - 2690 MHz (adjustable)	3400 - 3600 MHz (adjustable)
Number of Sub-bands		1	1
Bandwidth per Sub-band		0.2 - 20MHz (adjustable)	5-100 MHz (adjustable)
Max. Gain	Uplink	85±2 dB	85±2 dB
	Downlink	90±2 dB	90±2 dB
Manual Gain Control		25 dB in step of 1 dB	
Automatic Gain Control		≥ 25 dB	
Gain Flatness (per sub-band)		≤ ±2.5 dB (peak-to-peak)	
Max. Input Power Without Damage		0 dBm	
Output Power	Uplink	27±1 dBm	27±1 dBm
	Downlink	40±1 dBm	40±1 dBm
Out of Band Gain	2.5≤f_offset_CW<5.0 MHz	--	--
	5.0≤f_offset_CW<10.0 MHz	≤45 dB	≤45 dB
	10.0 MHz≤f_offset_CW	≤35 dB	≤35 dB
Spurious Emission	9KHz-1GHz	≤ -36 dBm	
	1GHz-12.75GHz	≤ -30 dBm	
ACRR	±20/100MHz	≤-36dBc/30KHz	
	±40/200MHz	≤-40dBc/30KHz	
EVM		≤ 3.5%	≤ 3.5%
Frequency Stability		≤ ±0.01 ppm	
Noise Figure		≤ 6 dB @ Max. Gain	
VSWR		≤ 1.5	
System Delay		≤ 4.5 μs	
RF Connector		N-Female	
Impedance		50 Ω	
Power Supply		AC 100~240 V, 50/ 60 Hz	
Power Consumption		≤ 245 W	
Dimensions		410*490*190 mm	
Weight		≤ 25 kgs	
IP Rating		IP65	
Operating Temperature		0 °C to 55 °C	
NMS	Local	Via Type-C/Wi-Fi App	
	Remote	Via Cloud-based NMS (optional)	

Technical specification is subject to change without prior notice.

5G MIMO Band-adjustable Digital Repeater

Model: 54312D(P/N:54312D.77)

Product Features:

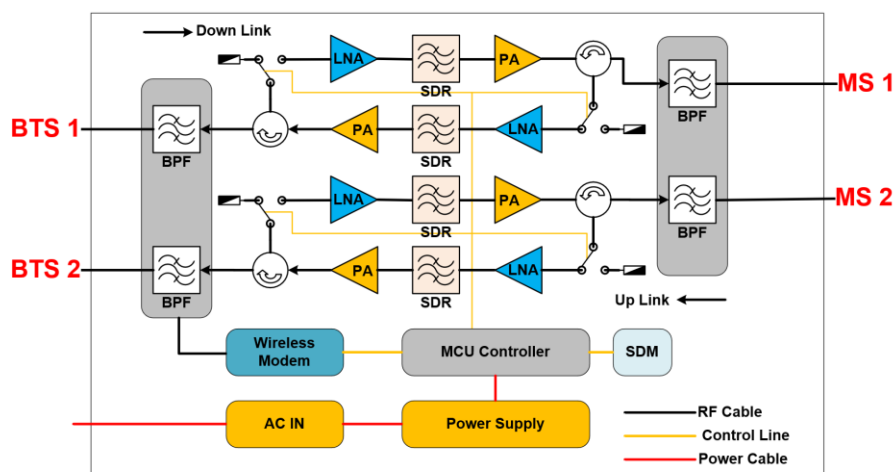
- Automated Synchronization: Ensures seamless network integration.
- NSA/SA Support: Compatible with both Non-Standalone and Standalone 5G networks.
- Flexible Bandwidth: Digital bandwidth adjustments allow for seamless operation across various frequency bands.
- Fine-grained Control: Individual sub-bands can be easily activated or deactivated for precise performance tuning.
- 5G Integrated Design: Facilitates easy and rapid deployment.
- Accurate Synchronization: Built-in 5G base band synchronous detection module (SDM) ensures precise timing with the donor base station.
- Remote/Local Management: NMS provides comprehensive remote and local control and monitoring capabilities.



Application Scenario:



Block Diagram:



Technical Specifications:

P/N: 54312D.77		N77 (2T2R)	
Frequency Range	Uplink	3800 - 4200 MHz (adjustable)	3800 - 4200 MHz (adjustable)
	Downlink	3800 - 4200 MHz (adjustable)	3800 - 4200 MHz (adjustable)
Number of Sub-bands		1	1
Bandwidth per Sub-band		5 - 100 MHz (adjustable)	5 - 100 MHz (adjustable)
Max. Gain	Uplink	90±2 dB	90±2 dB
	Downlink	95±2 dB	95±2 dB
Manual Gain Control		31 dB in step of 1 dB	
Automatic Gain Control		≥ 20 dB	
Gain Flatness (per sub-band)		≤ ±3 dB (peak-to-peak)	≤ ±3 dB (peak-to-peak)
Max. Input Power Without Damage		0 dBm	
Output Power	Uplink	27±2 dBm	27±2 dBm
	Downlink	43±2 dBm	43±2 dBm
Out of Band Gain	2.5≤f_offset_CW< 5.0 MHz	--	--
	5.0≤f_offset_CW<10.0 MHz	≤45 dB	≤45 dB
	10.0 MHz≤f_offset_CW	≤35 dB	≤35 dB
Spurious Emission	9kHz~1GHz	≤ -36dBm	≤ -36dBm
	1GHz~12.75GHz	≤ -30dBm	≤ -30dBm
ACRR	±100MHz	≤-36dBc/30KHz	≤-36dBc/30KHz
	±200MHz	≤-40dBc/30KHz	≤-40dBc/30KHz
EVM		≤ 3.5%	≤ 3.5%
Frequency Stability		≤ ±0.01 ppm	≤ ±0.01 ppm
Noise Figure		≤ 6 dB	
VSWR		≤ 1.8	
System Delay		≤ 3.5 μs	
RF Connector		N-Female	
Impedance		50 Ω	
Power Supply		AC 110/ 220 V, 50/ 60 Hz	
Power Consumption		500 W	
Dimensions		450*360*205 mm	
Weight		≤ 40 kg	
IP Rating		IP65	
Operating Temperature		-25 to 55 °C	
NMS	Local	Via RJ45/Wi-Fi App	
	Remote	Via Cloud-based NMS (optional)	

Technical specification is subject to change without prior notice.

5G-4G MIMO Dual Band-adjustable Digital Repeater

Model: 54014D (P/N: 54014D.781)

Product Features:

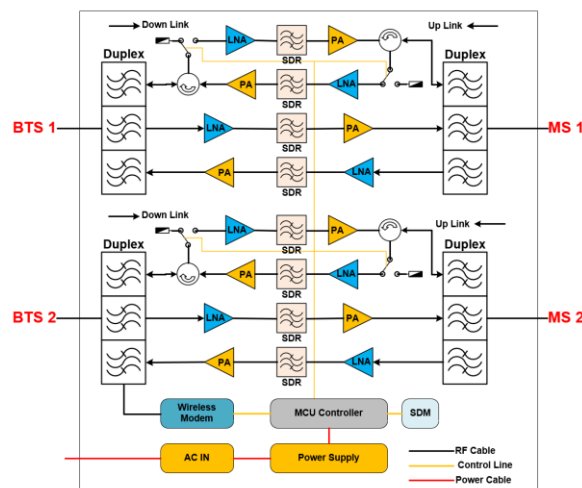
- Automated Synchronization: Ensures seamless network integration.
- NSA/SA Support: Compatible with both Non-Standalone and Standalone 5G networks.
- Flexible Bandwidth: Digital bandwidth adjustments allow for seamless operation across various frequency bands.
- Fine-grained Control: Individual sub-bands can be easily activated or deactivated for precise performance tuning.
- 5G Integrated Design: Facilitates easy and rapid deployment.
- Accurate Synchronization: Built-in 5G base band synchronous detection module (SDM) ensures precise timing with the donor base station.
- Remote/Local Management: NMS provides comprehensive remote and local control and monitoring capabilities.



Application Scenario:



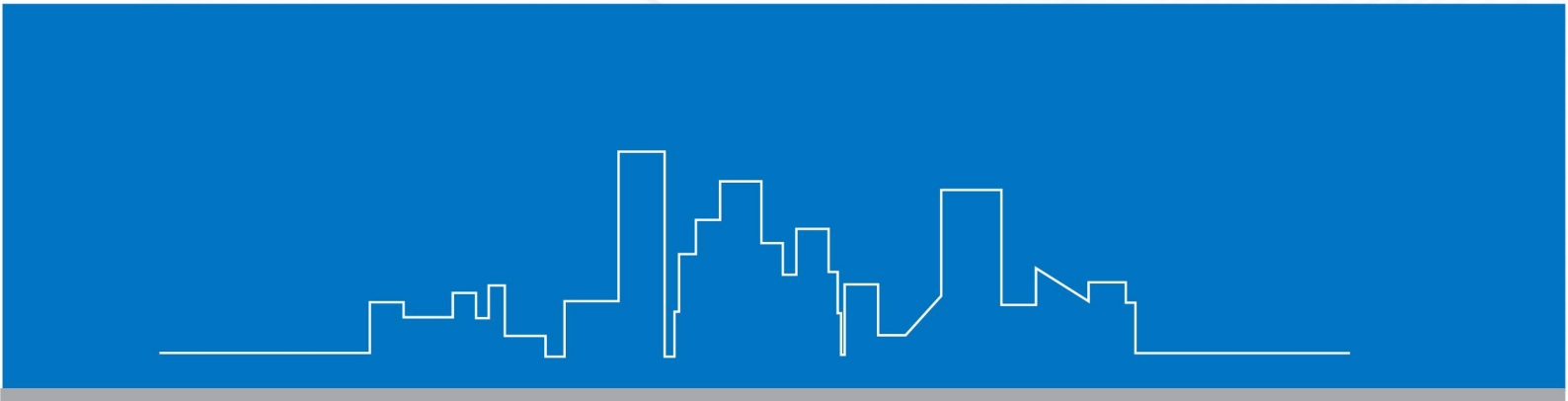
Block Diagram



Technical Specifications:

P/N: 54014D.781		B1 (2100) 2T2R		N78 (3500) 2T2R	
Frequency	Uplink	1920 - 1980 MHz	1920 - 1980 MHz	3490 - 3800 MHz	3490 - 3800 MHz
Range(adjustable)	Downlink	2110 - 2170 MHz	2110 - 2170 MHz	3490 - 3800 MHz	3490 - 3800 MHz
Number of Sub-bands		1-2	1-2	1-2	1-2
Bandwidth per Sub-band (adjustable)		0.2 - 20MHz	0.2 - 20MHz	5-100 MHz	5-100 MHz
Max. Gain	Uplink	90±2 dB	90±2 dB	90±2 dB	90±2 dB
	Downlink	95±2 dB	95±2 dB	95±2 dB	95±2 dB
Manual Gain Control		31 dB in step of 1 dB			
Automatic Gain Control		≥ 20 dB			
Gain Flatness (per sub-band)		≤ ±3 dB (peak-to-peak)		≤ ±3 dB (peak-to-peak)	
Max. Input Power Without Damage		0 dBm			
Output Power	Uplink	27±2 dBm	27±2 dBm	27±2 dBm	27±2 dBm
	Downlink	40±2 dBm	40±2 dBm	40±2 dBm	40±2 dBm
Out of Band Gain	2,5≤f_offset_CW<5,0 MHz	≤60 dB		--	
	5,0≤f_offset_CW<10,0 MHz	≤45 dB		≤45 dB	
	10,0 MHz≤f_offset_CW	≤35 dB		≤35 dB	
Spurious Emission	9KHz-1GHz	≤ -36dBm			
	1GHz-12.75GHz	≤ -30dBm			
ACRR	±20/100MHz	≤-36dBc/30KHz		≤-36dBc/30KHz	
	±40/200MHz	≤-40dBc/30KHz		≤-40dBc/30KHz	
EVM		≤ 8%		≤ 3.5%	
Frequency Stability		≤ ±0.01 ppm		≤ ±0.01 ppm	
Noise Figure		≤ 6 dB			
VSWR		≤ 1.8			
System Delay		≤ 4.5 μs			
RF Connector		N-Female			
Impedance		50 Ω			
Power Supply		AC 90-240 V, 50/ 60 Hz			
Power Consumption		≤ 700 W			
Dimensions		420*690*260 mm			
Weight		≤ 55 kgs			
IP Rating		IP65			
Operating Temperature		-25 °C to 55 °C			
NMS	Local	Via RJ45/Wi-Fi App			
	Remote	Via Cloud-based NMS (optional)			

Technical specification is subject to change without prior notice.



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