



5G NR Repeater

Product Catalog



5G NR Single Band-adjustable Digital Pico Repeater

Model: 51711D (P/N: 51711D.78)

Product Features:

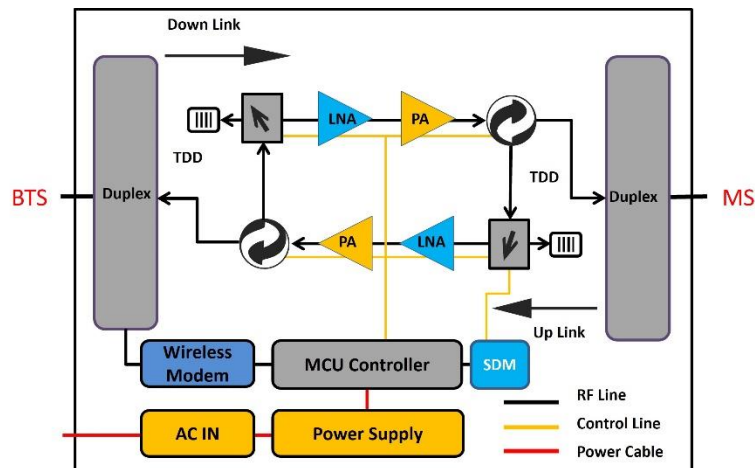
- NSA/SA supported.
- Digital bandwidth-adjustable feature allows for seamless adaptability to different frequency bands.
- Each sub-band can be easily turned on and off, allowing for more precise control.
- Inter-band Carrier Aggregation Supported
- Intelligent algorithm to prevent UL interference.
- Built-in service antenna
- Compact design for easy installation.



Application Scenario:



Block Diagram:





Technical Specifications:

P/N: 51711D.78		N78 (3500)
Frequency Range	Uplink	3300 - 3800 MHz (adjustable)
	Downlink	3300 - 3800 MHz (adjustable)
Number of Sub-bands		1
Bandwidth		≤ 100 MHz (adjustable)
Max. Gain	Uplink	$\geq 75 \pm 1$ dB
	Downlink	$\geq 75 \pm 1$ dB
Manual Gain Control		25 dB in step of 1 dB
Automatic Gain Control		≥ 25 dB
Gain Flatness (per sub-band)		≤ 3 dB
Max. Input Power Without Damage		0 dBm
Output Power	Uplink	$\geq 17 \pm 1$ dBm
	Downlink	$\geq 17 \pm 1$ dBm
Out of Band Gain		Comply with 3GPP
Spurious Emission		Comply with 3GPP
ACRR		N/A
EVM		$\leq 3.5\%$
Frequency Stability		$\leq \pm 0.01$ ppm
Noise Figure		≤ 6 dB @ Max. Gain
VSWR		≤ 1.8
System Delay		≤ 3.8 μ s
RF Connector		SMA-Female
Impedance		50 Ω
Power Supply	Input	AC 100~240 V, 50/ 60 Hz
	Output	DC 12 V/ 3 A
Power Consumption		≤ 25 W
Dimensions		185*156*48 mm
Weight		≤ 2.0 kgs
IP Rating		IP40
Operating Temperature		0 °C to 55 °C
Control & Monitoring	Local	Via Type C
LED Indicators	RSSI	Green LED x 3 to Indicate the Receive Power Level
	ALM	Red LED x 1 to Indicate the Unit Is alarming
	STATE	Green LED x 1 to Indicate the Unit Is Operating
Automatic Shut-down Function		RSSI Overpower Shutdown (Max. -20dBm)
		RSSI Underpower Shutdown (Min. -85dBm)
		Isolation Shutdown

Technical specification is subject to change without prior notice.



5G NR Pico Repeater

Model: 52011 (P/N: 52011.78)

Product Features:

- Compact design for convenient installation.
- Intelligent gain adjustment.
- Operator level performance.
- Wi-Fi local control for easy operation.



Application Scenario:



Technical Specifications:

P/N: 52011.78		N78 (3500)
Frequency Range	Uplink	3300 - 3600 MHz
	Downlink	3300 - 3600 MHz
Number of Sub-bands		1
Bandwidth		≤ 100 MHz
Max. Gain	Uplink	≥ 65±2 dB
	Downlink	≥ 70±2 dB
Manual Gain Control		25 dB in step of 1 dB
Automatic Gain Control		≥ 20 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		Comply with 3GPP



Spurious Emission		Comply with 3GPP
ACRR		Comply with 3GPP
EVM		$\leq 3.5\%$
Frequency Stability		$\leq \pm 0.01$ ppm
Noise Figure		≤ 8 dB @ Max. Gain
VSWR		≤ 1.8
System Delay		≤ 2.5 μ s
RF Connector		N-Female
Impedance		50 Ω
Power Supply		Input: AC 100~240 V, 50/ 60 Hz; Output: DC 5 V/ 3 A
Power Consumption		≤ 15 W
Dimensions		280*265*77 mm
Weight		≤ 3.5 kgs
IP Rating		IP40
Operating Temperature		-10 °C to 50 °C
Control & Monitoring	Local	Via Wi-Fi

Technical specification is subject to change without prior notice.



5G NR MIMO Pico Repeater

Model: 52012 (P/N: 52012.78)

Product Features:

- Support 2T2R, higher data transmission.
- Compact design for convenient installation.
- Intelligent gain adjustment.
- Operator level performance.
- Wi-Fi local control for easy operation.



Application Scenario:



Technical Specifications:

P/N: 52012.78		N78 (2T2R)	
Frequency Range	Uplink	3300 - 3600 MHz	3300 - 3600 MHz
	Downlink	3300 - 3600 MHz	3300 - 3600 MHz
Number of Sub-bands		1	1
Bandwidth		≤ 100 MHz	≤ 100 MHz
Max. Gain	Uplink	$\geq 65 \pm 2$ dB	$\geq 65 \pm 2$ dB
	Downlink	$\geq 70 \pm 2$ dB	$\geq 70 \pm 2$ dB
Manual Gain Control		25 dB in step of 1 dB	
Automatic Gain Control		≥ 20 dB	
Gain Flatness (per sub-band)		≤ 5 dB (peak-to-peak)	≤ 5 dB (peak-to-peak)
Max. Input Power Without Damage		0 dBm	
Output Power	Uplink	$\geq 20 \pm 2$ dBm	$\geq 20 \pm 2$ dBm
	Downlink	$\geq 20 \pm 2$ dBm	$\geq 20 \pm 2$ dBm
Out of Band Gain		Comply with 3GPP	Comply with 3GPP



Spurious Emission	9kHz~1GHz	$\leq -36\text{dBm}$	$\leq -36\text{dBm}$
	1GHz~12.75GHz	$\leq -30\text{dBm}$	$\leq -30\text{dBm}$
ACRR	100MHz	$\leq -40\text{dBc}/30\text{KHz}$	$\leq -40\text{dBc}/30\text{KHz}$
	200MHz	$\leq -45\text{dBc}/30\text{KHz}$	$\leq -45\text{dBc}/30\text{KHz}$
EVM		$\leq 3.5\%$	$\leq 3.5\%$
Frequency Stability		$\leq \pm 0.01 \text{ ppm}$	$\leq \pm 0.01 \text{ ppm}$
Noise Figure		$\leq 8 \text{ dB}$	
VSWR		≤ 1.8	
System Delay		$\leq 2.5 \mu\text{s}$	
RF Connector		N-Female	
Impedance		50 Ω	
Power Supply		Input: AC 100~240 V; Output: DC 5V/ 3 A	
Power Consumption		30 W	
Dimensions		280*265*77 mm	
Weight		$\leq 4 \text{ kg}$	
IP Rating		IP40	
Operating Temperature		-25 to 55 °C	
Control & Monitoring	Local	Via Wi-Fi	

Technical specification is subject to change without prior notice.



5G Band-adjustable Digital Repeater

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

Product Features:

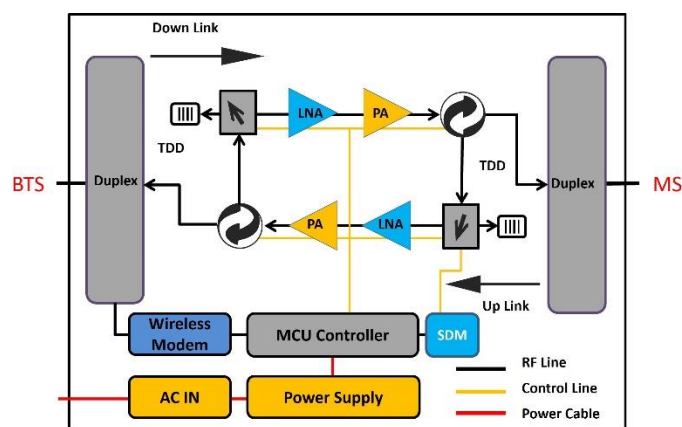
- Digital bandwidth-adjustable feature allows for seamless adaptability to different frequency bands.
- 5G integrated design, easy deployment.
- Built-in Auto Gain Control (AGC)& Auto Level Control (ALC).
- Built-in 5G base band synchronous detection module (SDM) to ensure accurate synchronization with donor base station.
- Configure 5G TDD uplink and downlink timeslot format flexibly through software.
- OMS Lite for remote/local control and monitoring.



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		≤ 100 MHz (adjustable)
Max. Gain	Uplink	$\geq 85 \pm 2$ dB
	Downlink	$\geq 85 \pm 2$ dB
Manual Gain Control		31 dB in step of 1 dB
Automatic Gain Control		≥ 20 dB
Gain Flatness (per sub-band)		$\leq \pm 3$ dB (peak-to-peak)
Max. Input Power Without Damage		0 dBm
Output Power	Uplink	≥ 27 dBm
	Downlink	$\geq 37 \pm 1$ dBm
Out of Band Gain		Comply with 3GPP
Spurious Emission	9kHz~1GHz	≤ -36 dBm
	1GHz~12.75GHz	≤ -30 dBm
ACRR	100MHz	≤ -40 dBc/30KHz
	200MHz	≤ -45 dBc/30KHz
EVM		$\leq 3.5\%$
Frequency Stability		$\leq \pm 0.01$ ppm
Noise Figure		≤ 6 dB
VSWR		≤ 1.5
System Delay		≤ 1.5 μ s
RF Connector		N-Female
Impedance		50 Ω
Power Supply		AC 110/ 220 V, 50/ 60 Hz
Power Consumption		200 W
Dimensions		450*360*205 mm
Weight		≤ 20 kg
IP Rating		IP65
Operating Temperature		-25 to 55 $^{\circ}$ C
Control & Monitoring	Local	Via RJ45
	Remote	Via Wireless Modem (optional)

Technical specification is subject to change without prior notice.



5G MIMO Band-adjustable Digital Repeater

Model: 53712D(P/N:53712D.78)

Product Features:

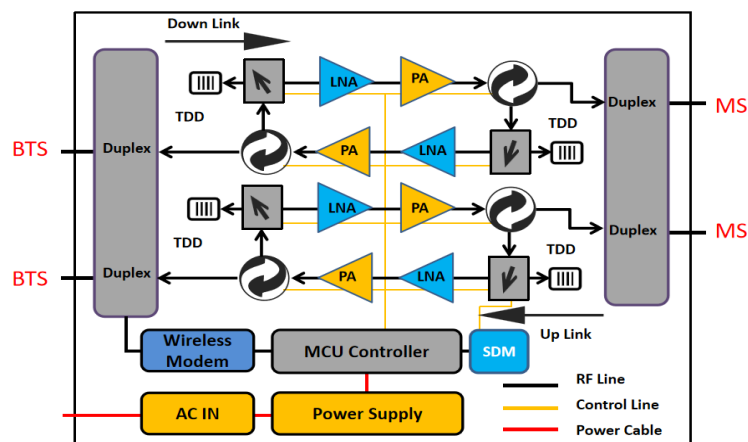
- Digital bandwidth-adjustable feature allows for seamless adaptability to different frequency bands.
- Support 2T2R MIMO function, The real speed test up to 600+Mbps (MIMO).
- 5G integrated design, easy deployment.
- Built-in Auto Gain Control (AGC)& Auto Level Control (ALC).
- Built-in 5G base band synchronous detection module (SDM) to ensure accurate synchronization with donor base station.
- Configure 5G TDD uplink and downlink timeslot format flexibly through software.
- OMS Lite for remote/local control and monitoring.



Application Scenario:



Block Diagram:





Technical Specifications:

P/N: 53712D.78		N78 (2T2R)	
Frequency Range	Uplink	3300 - 3600 MHz (adjustable)	3300 - 3600 MHz (adjustable)
	Downlink	3300 - 3600 MHz (adjustable)	3300 - 3600 MHz (adjustable)
Number of Sub-bands		1	1
Bandwidth		≤ 100 MHz (adjustable)	≤ 100 MHz (adjustable)
Max. Gain	Uplink	$\geq 85 \pm 2$ dB	$\geq 85 \pm 2$ dB
	Downlink	$\geq 85 \pm 2$ dB	$\geq 85 \pm 2$ dB
Manual Gain Control		31 dB in step of 1 dB	
Automatic Gain Control		≥ 20 dB	
Gain Flatness (per sub-band)		$\leq \pm 3$ dB (peak-to-peak)	$\leq \pm 3$ dB (peak-to-peak)
Max. Input Power Without Damage		0 dBm	
Output Power	Uplink	≥ 27 dBm	≥ 27 dBm
	Downlink	$\geq 37 \pm 1$ dBm	$\geq 37 \pm 1$ dBm
Out of Band Gain		Comply with 3GPP	Comply with 3GPP
Spurious Emission	9kHz~1GHz	≤ -36 dBm	≤ -36 dBm
	1GHz~12.75GHz	≤ -30 dBm	≤ -30 dBm
ACRR	100MHz	≤ -40 dBc/30KHz	≤ -40 dBc/30KHz
	200MHz	≤ -45 dBc/30KHz	≤ -45 dBc/30KHz
EVM		$\leq 3.5\%$	$\leq 3.5\%$
Frequency Stability		$\leq \pm 0.01$ ppm	$\leq \pm 0.01$ ppm
Noise Figure		≤ 6 dB	
VSWR		≤ 1.5	
System Delay		≤ 1.5 μ s	
RF Connector		N-Female	
Impedance		50 Ω	
Power Supply		AC 110/ 220 V, 50/ 60 Hz	
Power Consumption		200 W	
Dimensions		450*360*205 mm	
Weight		≤ 20 kg	
IP Rating		IP65	
Operating Temperature		-25 to 55 °C	
Control & Monitoring	Local	Via RJ45	
	Remote	Via Wireless Modem (optional)	

Technical specification is subject to change without prior notice.



5G/4G Triple-band In-line Amplifier

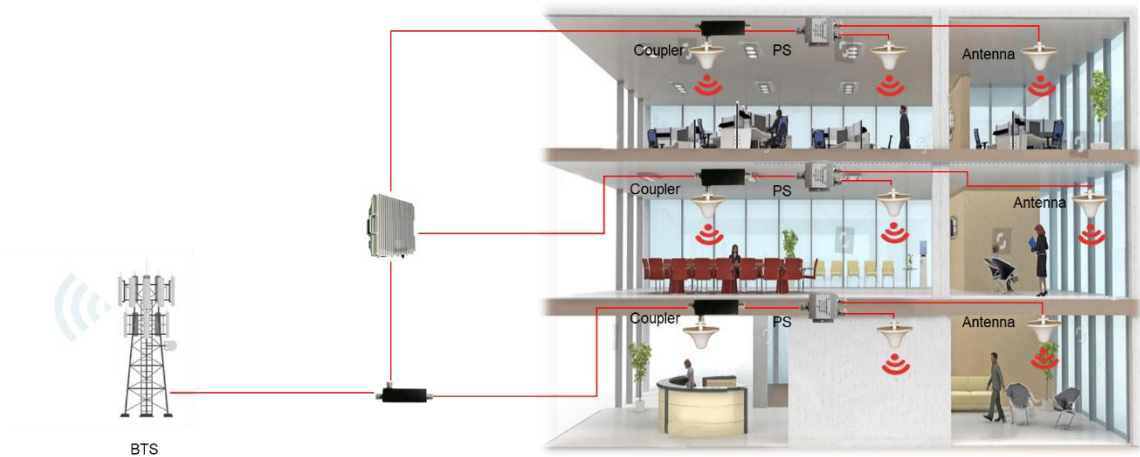
Model: 54653 (P/N: 54653.4113)

Product Features:

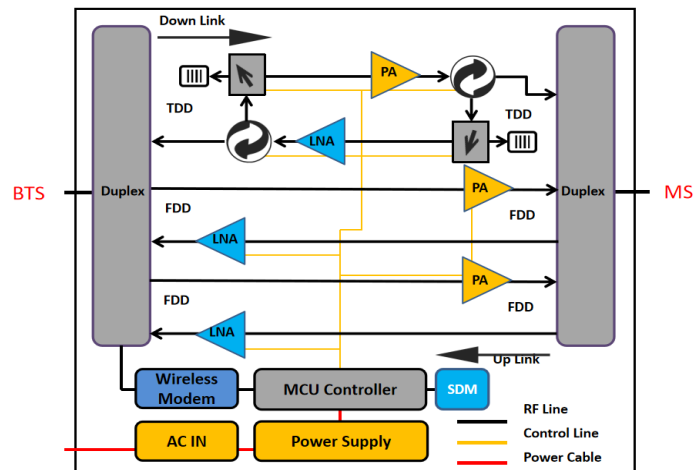
- Extend BTS in-building coverage.
- Multi-band supported.
- Intelligent algorithm to prevent UL interference.
- Local and remote control supported.
- Compact design for easy installation and maintenance.



Application Scenario:



Block Diagram:





Technical Specifications:

P/N: 54653.4113		B3(1800)	B1(2100)	N41(2500)
Frequency Range	Uplink	1725-1745 MHz	1950-1980 MHz	2500-2600 MHz
	Downlink	1820-1840 MHz	2140-2170 MHz	2500-2600 MHz
Number of Sub-bands		1	1	1
Bandwidth		20 MHz	30 MHz	100 MHz
Max. Gain	Uplink	$\geq 60 \pm 1$ dB		
	Downlink	$\geq 60 \pm 1$ dB		
Manual Gain Control		31 dB in step of 1 dB		
Automatic Gain Control		≥ 20 dB		
Gain Flatness		$\leq \pm 5$ dB (peak-to-peak)		
Max. Input Power Without Damage	Uplink	0 dBm		
	Downlink	10 dBm		
Output Power	Uplink	$\geq -10 \pm 2$ dBm	$\geq -10 \pm 2$ dBm	$\geq -10 \pm 2$ dBm
	Downlink	$\geq 46 \pm 2$ dBm	$\geq 46 \pm 2$ dBm	$\geq 46 \pm 2$ dBm
Spurious Emission		Comply with 3GPP		
ACRR		Comply with 3GPP		
Peak Code Domain Error (WCDMA)		≤ -35 dB @ Spreading Factor 256		
EVM		$\leq 8\%$	$\leq 8\%$	$\leq 5\%$
Frequency Stability		$\leq \pm 0.01$ ppm		
Noise Figure		≤ 5 dB		
VSWR		≤ 1.5		
Group Delay		≤ 1.5 μ s		
RF Connector		N-Female		
Impedance		50 Ω		
Power Supply		AC 110/ 220 V, 50/ 60 Hz		
Power Consumption		500 W		
Dimensions		410*490*190 mm		
Weight		≤ 30 kg		
IP Rating		IP65		
Operating Temperature		-10 to +55 °C		
Control & Monitoring	Local	Via RJ45		
	Remote	Via Wireless Modem (optional)		

Technical specification is subject to change without prior notice.



5G NR Single-band In-line Amplifier

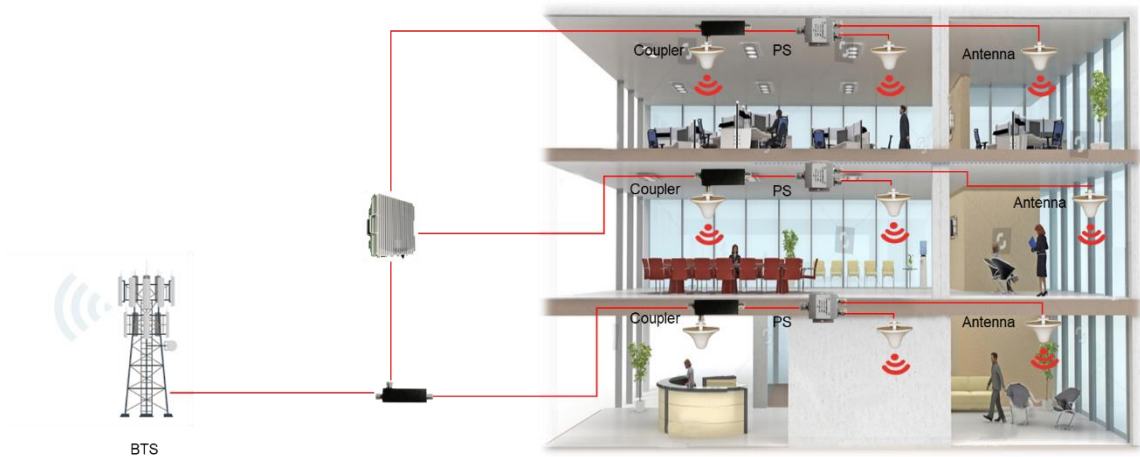
Model: 54851 (P/N: 54851.41)

Product Features:

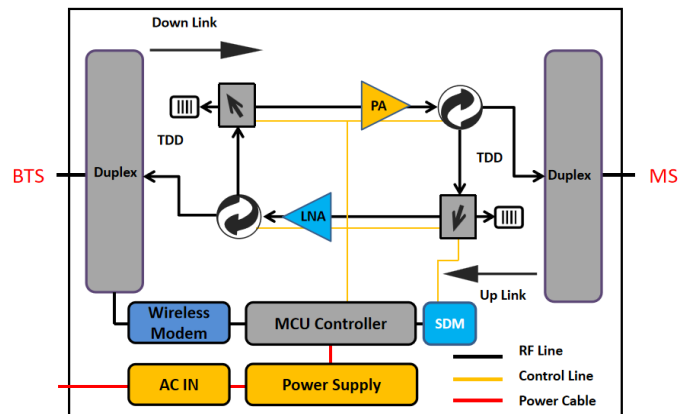
- Extend BTS in-building coverage.
- Multi-band supported.
- Intelligent algorithm to prevent UL interference.
- Local and remote control supported.
- Compact design for easy installation and maintenance.



Application Scenario:



Block Diagram:





Technical Specifications:

P/N: 54851.41		N41(2500)
Frequency Range	Uplink	2500-2600 MHz
	Downlink	2500-2600 MHz
Number of Sub-bands		1
Bandwidth		100 MHz
Max. Gain	Uplink	$\geq 60 \pm 1$ dB
	Downlink	$\geq 60 \pm 1$ dB
Manual Gain Control		31 dB in step of 1 dB
Automatic Gain Control		≥ 20 dB
Gain Flatness		$\leq \pm 5$ dB (peak-to-peak)
Max. Input Power Without Damage	Uplink	0 dBm
	Downlink	10 dBm
Output Power	Uplink	$\geq -10 \pm 2$ dBm
	Downlink	$\geq 48 \pm 2$ dBm
Spurious Emission		Comply with 3GPP
ACRR		Comply with 3GPP
Peak Code Domain Error (WCDMA)		≤ -35 dB @ Spreading Factor 256
EVM		$\leq 5\%$
Frequency Stability		$\leq \pm 0.01$ ppm
Noise Figure		≤ 5 dB
VSWR		≤ 1.5
Group Delay		≤ 1.5 μ s
RF Connector		N-Female
Impedance		50 Ω
Power Supply		AC 110/ 220 V, 50/ 60 Hz
Power Consumption		140 W
Dimensions		410*490*190 mm
Weight		≤ 10 kg
IP Rating		IP65
Operating Temperature		-10 to +55 $^{\circ}$ C
Control & Monitoring	Local	Via RJ45
	Remote	Via Wireless Modem (optional)

Technical specification is 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

