



- ➤ ➤ **F20-DB Dual System**
20dBm power , 70dB gain
600~2000 square meters

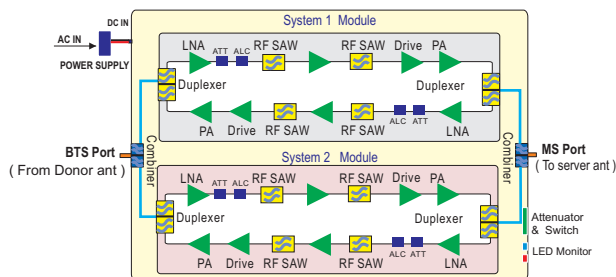


➤ Description :

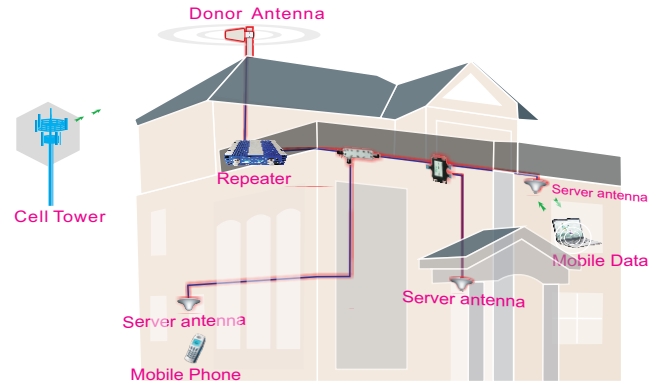
F20-DB dual system repeater is to support any two mobile systems existing in the world to help end users to improve mobile signals for much better phone call quality and smoother data transmission. It is designed to support coverage area up to 600~2000 square meters with proper engineering. Below are the main features:

1. The consumer repeater is an ideal solution for providing a cost effective improvement in cellular in-building coverage of a home, office, restaurant or building, in the quickest time possible.
2. Manual gain control (MGC) available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
3. To maintain safe and specific output signal levels and give alarms on self-oscillation, the repeater has built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
4. Auto shut off function available for both uplink and downlink to avoid deep self-oscillations from jamming the towers, saving your trouble from operators.
5. Wide band feature enables all devices operating within the wide frequency range of the repeater to see an improvement in performance.
6. Multiple phones and other handheld devices throughout a building can benefit from a wireless repeater.
7. Supports up to (160) users / calls simultaneously.
8. Extended phone battery life. (Your phone does not need to put out as much power due to improved reception.)

➤ Block Diagram:



➤ Application:



➤ Specification:

Electrical specification		Uplink	Downlink
Frequency Range	CDMA800	824 ~ 849 MHz	869 ~ 894 MHz
	CDMA1900	1850 ~ 1910 MHz	1930 ~ 1990 MHz
	GSM850	824 ~ 849 MHz	869 ~ 894 MHz
	GSM900 & EGSM	880 ~ 915 MHz	925 ~ 960 MHz
	DCS	1710 ~ 1785 MHz	1805 ~ 1880 MHz
	PCS	1850 ~ 1910 MHz	1930 ~ 1990 MHz
	WCDMA	1920 ~ 1980 MHz	2110 ~ 2170 MHz
	AWS	1710 ~ 1755 MHz	2110 ~ 2155 MHz
Max .Gain		≥ 65dB	≥ 70dB
Max .Output Power		≥ 15dBm	≥ 20dBm
Band width (-3dB)		Wide Band	
MGC (Step Attenuation)		≥ 31dB / 1dB step	
Automatic Level Control		≥ 15dB, auto shut off after 15dB	
Gain Flatness	GSM & CDMA	Typ ≤ 6dB(P-P); DCS,PCS ≤ 8dB(P-P)	
	WCDMA	≤ 2dB/ 3.84MHz, Full Band ≤ 5dB(P-P)	
Noise Figure		≤ 6dB	
VSWR		≤ 2.0	
Group Delay		≤ 1.5μs	
Frequency stability		≤ 0.01ppm	
Spurious Emission & Output inter-modulation		GSM Meet ETSI TS 151 026	
		WCDMA Meet 3GPP TS 25.143	
		CDMA Meet IS95 & CDMA2000	
WCDMA System	Spurious Emission Mask	Meet 3GPP TS 25.143	
	Modulation Accuracy	≤ 12.5%	
	Peak Code Domain Error	≤ -35dB@Spreading Factor 256	
CDMA System	Rho	ρ > 0.980	
	ACPR	Meet IS95 & CDMA2000	

LED Alarm	Standard
Power LED	Power Indicator
ALC LED 1 -- Low frequency Band	Orange @ ALC 1~5dB, Red @ ALC 15dB~20dB, LED off after 5 seconds red color
ALC LED 2 -- High frequency Band	Orange @ ALC 1~5dB, Red @ ALC 15dB~20dB, LED off after 5 seconds red color

Mechanical	Specifications	Standard
I/O Port		N-Female
Impedance		50 ohm
Operating Temperature		-25°C~+55°C
Environment Conditions		IP40
Dimensions		250x220x53mm
Weight		≤ 3.2Kg
Power Supply		Input AC90~264V,output DC12V / 3A