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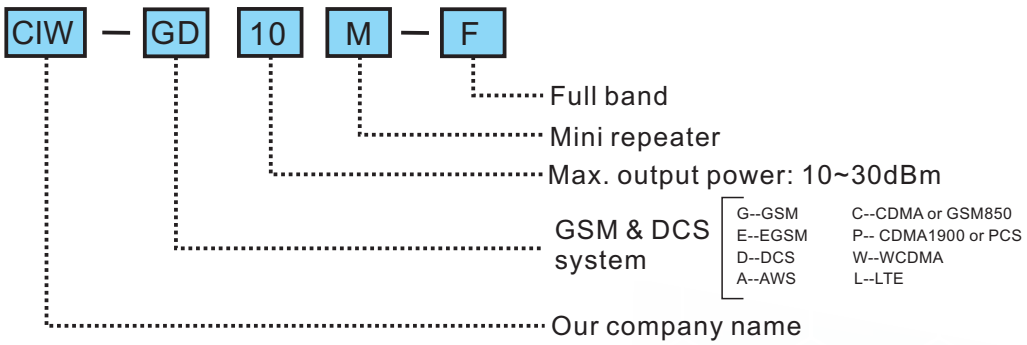
Consumer Wide Band Repeater

Consumer Wide Band Repeaters are wide band devices that amplify signals of all operators in the mobile system. They are designed for the end users, who are suffering a poor or blind signal. Such as: the house, apartment, the bookstore, the restaurant, the coffee shop, the KTV, the bar, the parking pot, the super market, big office…

Not only we produce the wide repeaters which support single system dual system and triple system, but also we produce the repeaters which support quad or five systems.

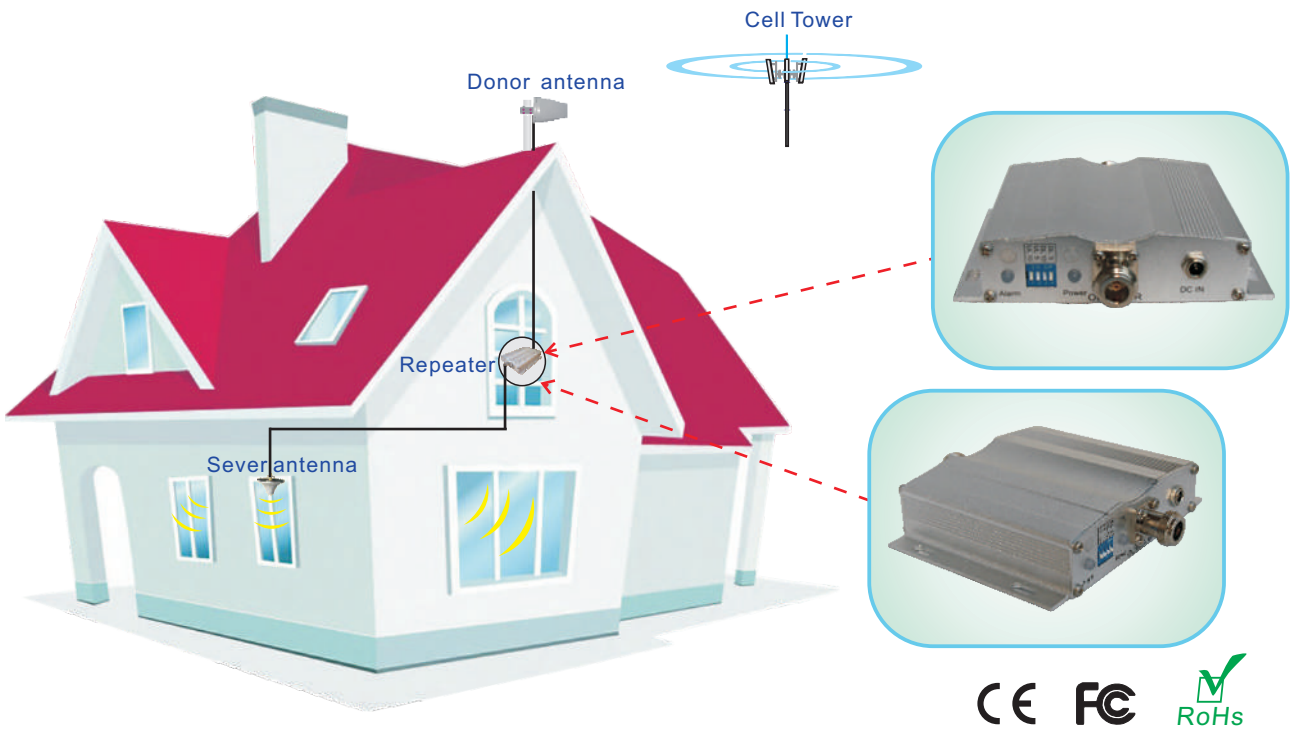
We also produce the car repeater which is used in the car and elevator repeater which is used in elevator.

Nomenclature:



CIW-10M-F

10dBm single system mini repeater
50-150sq.m coverage.



Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

SYN-10M-F single system series are designed for the end users, who are suffering a poor or blind signal and whose house, apartment or office area is between 50-150sqm. Using a revolutionary, patent pending technology that protects the carrier network, the SYN-10M-F single system improves indoor cell phone signals by capturing and repeating the outside signals, bringing them into the building and enhancing them.

Advantages:

1. Elegant and compact design.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. 15dB MGC (Manual gain control) 5dB per step available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
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. Low power consumption.

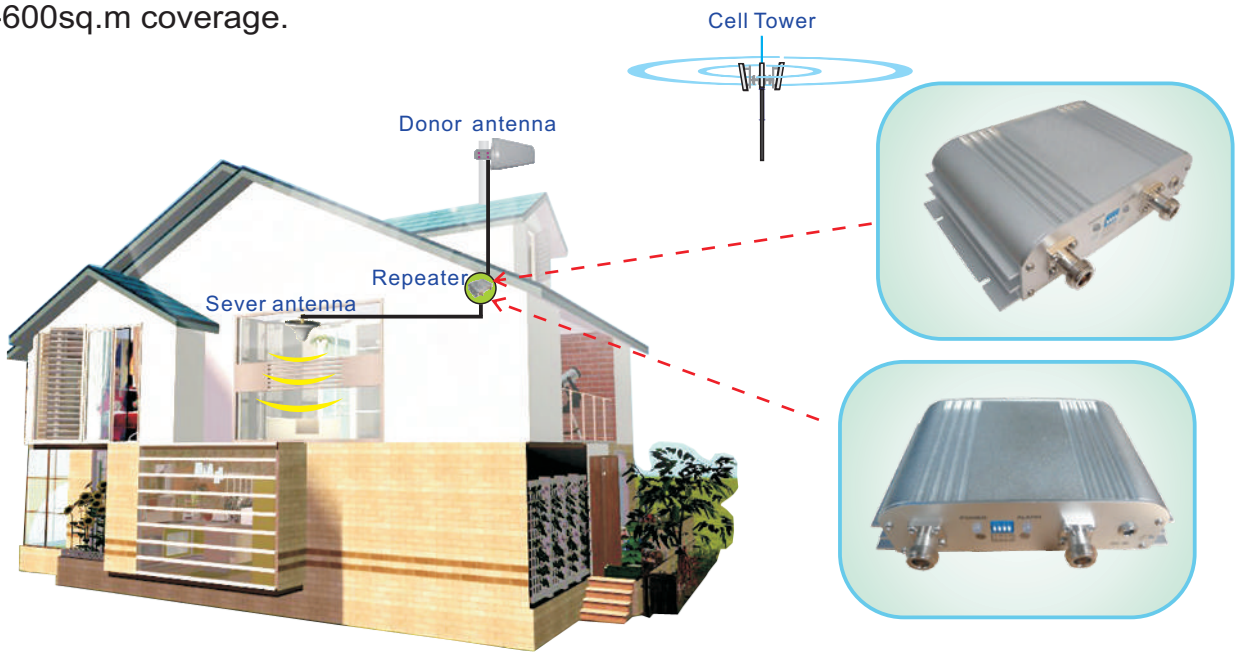
Specification:

Electrical specification	**Uplink**	**Downlink**
Frequency Range	Customized upon request	
Max .Gain	⩾ 55dB	⩾ 60dB
Max .Output Power	⩾ 10dBm	⩾ 10dBm
Band width (-3dB)	Wide Band	
MGC	⩾ 15dB / 5dB step	
ALC	⩾ 15dB, auto shut off 31dB after 15dB	
Gain Flatness	⩽6dB(P-P)	
Noise Figure	⩽6dB	
VSWR	⩽1.8	
Group Delay	⩽0.5μs	
LED Alarm	**Standard**	
Power LED	Green light when power on.	
ALC LED	Orange @ ALC 1~5dB, Red @ ALC 14dB~16dB, 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	129x95x30mm	
Weight	⩽ 0.8Kg	
Power Supply	Input AC90~264V,output DC5V / 2A	

SOLUTION OF YOUR NEED

CIW-10C-F

10dBm single system mini repeater
100-600sq.m coverage.



Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

SYN-10C-F single system series are designed for the end users, who are suffering a poor or blind signal and whose house, apartment or office area is between 100-600sqm. Using a revolutionary, patent pending technology that protects the carrier network, the SYN-10C-F single system improves indoor cell phone signals by capturing and repeating the outside signals, bringing them into the building and enhancing them.

Advantages:

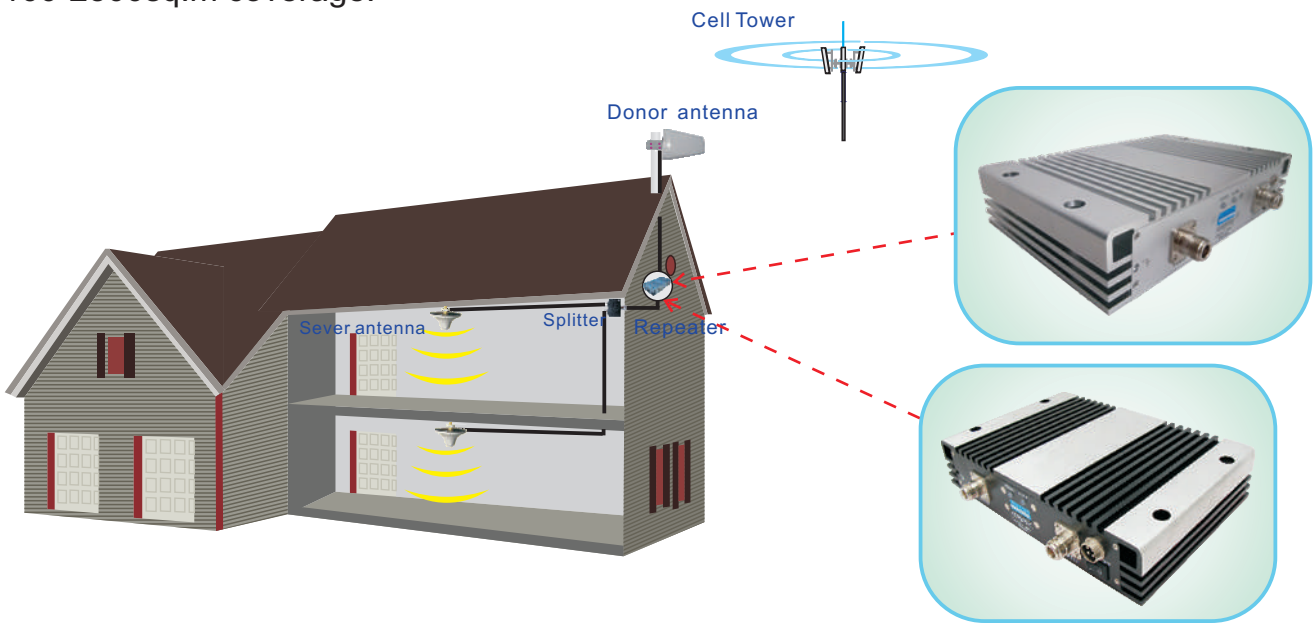
1. Elegant and compact design.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. 15dB MGC (Manual gain control) 5dB per step available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
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. Low power consumption.

Specification:

Electrical specification	**Uplink**	**Downlink**
Frequency Range	Customized upon request	
Max .Gain	⩾ 60dB	⩾ 65dB
Max .Output Power	⩾ 10dBm	⩾ 10dBm
Band width (-3dB)	Wide Band	
MGC	⩾ 15dB / 5dB step	
ALC	⩾ 15dB,auto shut off 31dB after 15dB	
Gain Flatness	⩽6dB(P-P)	
Noise Figure	⩽6dB	
VSWR	⩽1.8	
Group Delay	⩽0.5μs	
LED Alarm	**Standard**	
Power LED	Green light when power on.	
ALC LED	Orange @ ALC 1~5dB, Red @ ALC 14dB~16dB, 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	176x100x44mm	
Weight	⩽ 0.8Kg	
Power Supply	Input AC90~264V,output DC5V / 2A	

CIW-13~23-F

13~23dBm single system repeater
100-2500sq.m coverage.



Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

SYN-13~23-F single system signal repeater series are designed for business places indoor coverage solution. Such as the bookstore, the restaurant, the coffee shop, the KTV, the bar, the parking pot, the super market, big office... And the area is between 100-2500sqm. Using a revolutionary, patent pending technology that protects the carrier network, the SYN-13~23-F single system improves indoor cell phone signals by capturing and repeating the outside signals, bringing them into the building and enhancing them.

Advantages:

1. Elegant and compact design.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. 31dB MGC (Manual gain control) 1dB per step available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
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. Low power consumption.

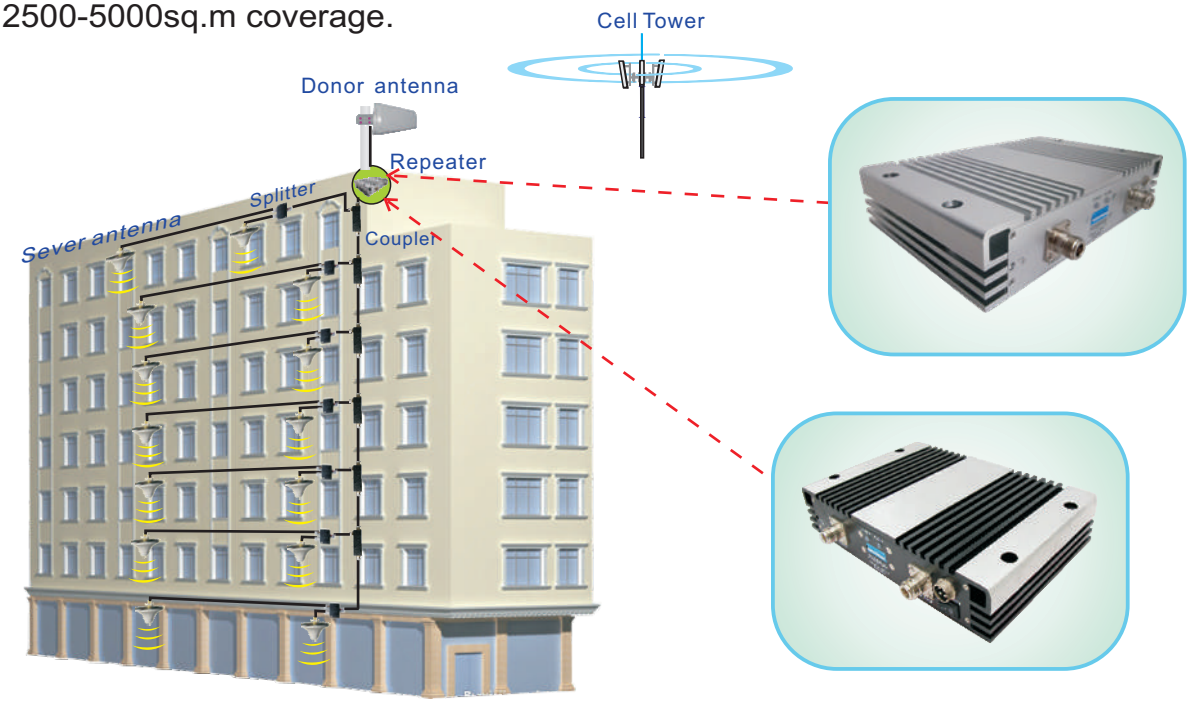
Specification:

Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain	SYN-13-F	⩾ 60dB	⩾ 68dB
	SYN-15-F	⩾ 65dB	⩾ 68dB
	SYN-20-F	⩾ 65dB	⩾ 70dB
	SYN-23-F	⩾ 70dB	⩾ 75dB
Max .Output Power	SYN-13-F	⩾ 10dBm	⩾ 13dBm
	SYN-15-F	⩾ 12dBm	⩾ 15dBm
	SYN-20-F	⩾ 15dBm	⩾ 20dBm
	SYN-23-F	⩾ 15dBm	⩾ 23dBm
Band width (-3dB)		Wide Band	
MGC		⩾ 31dB / 1dB step	
ALC		⩾ 15dB,auto shut off after 15dB	
Gain Flatness		⩽6dB(P-P)	
Noise Figure		⩽6dB	
VSWR		⩽1.8	
Group Delay		⩽0.5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		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		250x125x52mm	
Weight		⩽ 2.0Kg	
Power Supply		Input AC90~264V,output DC10V / 3A	

SOLUTION OF YOUR NEED

CIW-27~33-F

27~33dBm single system repeater
2500-5000sq.m coverage.



Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

SYN-27~33-F single system signal repeater series are designed for business places indoor coverage solution. Such as the bookstore, the restaurant, the coffee shop, the KTV, the bar, the parking pot, the super market, big office.... And the area is between 2500-5000sqm. Using a revolutionary, patent pending technology that protects the carrier network, the SYN-27~33-F single system improves indoor cell phone signals by capturing and repeating the outside signals, bringing them into the building and enhancing them.

Advantages:

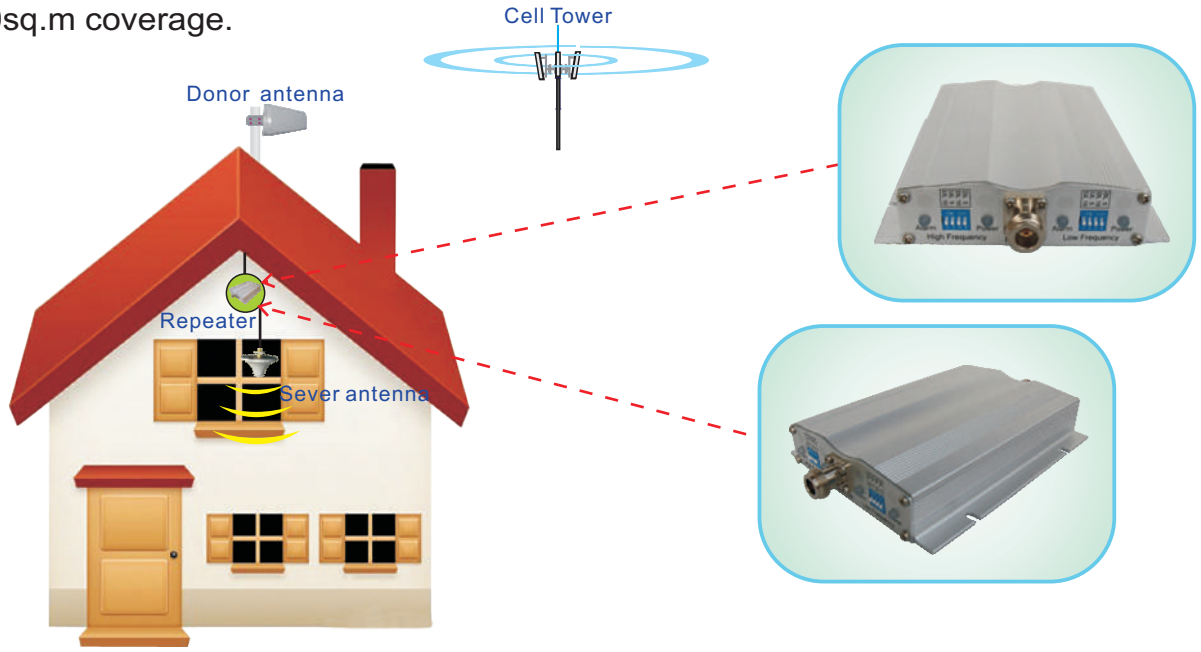
1. Elegant and compact design.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. 31dB MGC (Manual gain control) 1dB per step available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
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. Low power consumption.

Specification:

Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain	SYN-27-F	⩾ 75dB	⩾ 75dB
	SYN-30-F	⩾ 75dB	⩾ 80dB
	SYN-33-F	⩾ 80dB	⩾ 83dB
Max .Output Power	SYN-27-F	⩾ 20dBm	⩾ 27dBm
	SYN-30-F	⩾ 20dBm	⩾ 30dBm
	SYN-33-F	⩾ 20dBm	⩾ 33dBm
Band width (-3dB)		Wide Band	
MGC		⩾ 31dB / 1dB step	
ALC		⩾ 15dB,auto shut off after 15dB	
Gain Flatness		⩽6dB(P-P)	
Noise Figure		⩽6dB	
VSWR		⩽1.8	
Group Delay		⩽0.5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		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		250x220x52mm	
Weight		⩽ 3.2Kg	
Power Supply		Input AC90~264V,output DC10V / 3A	

CIW-DB10M-F

10dBm dual system mini repeater
50-150sq.m coverage.



Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

SYN-DB10M-F dual system series are designed for the end users, who are suffering a poor or blind signal and whose house, apartment or office area is between 50-150sqm. Using a revolutionary, patent pending technology that protects the carrier network, the SYN-DB10M-F dual system improves indoor cell phone signals by capturing and repeating the outside signals, bringing them into the building and enhancing them.

Advantages:

1. Elegant and compact design.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. 15dB MGC (Manual gain control) 5dB per step available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
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. Low power consumption.

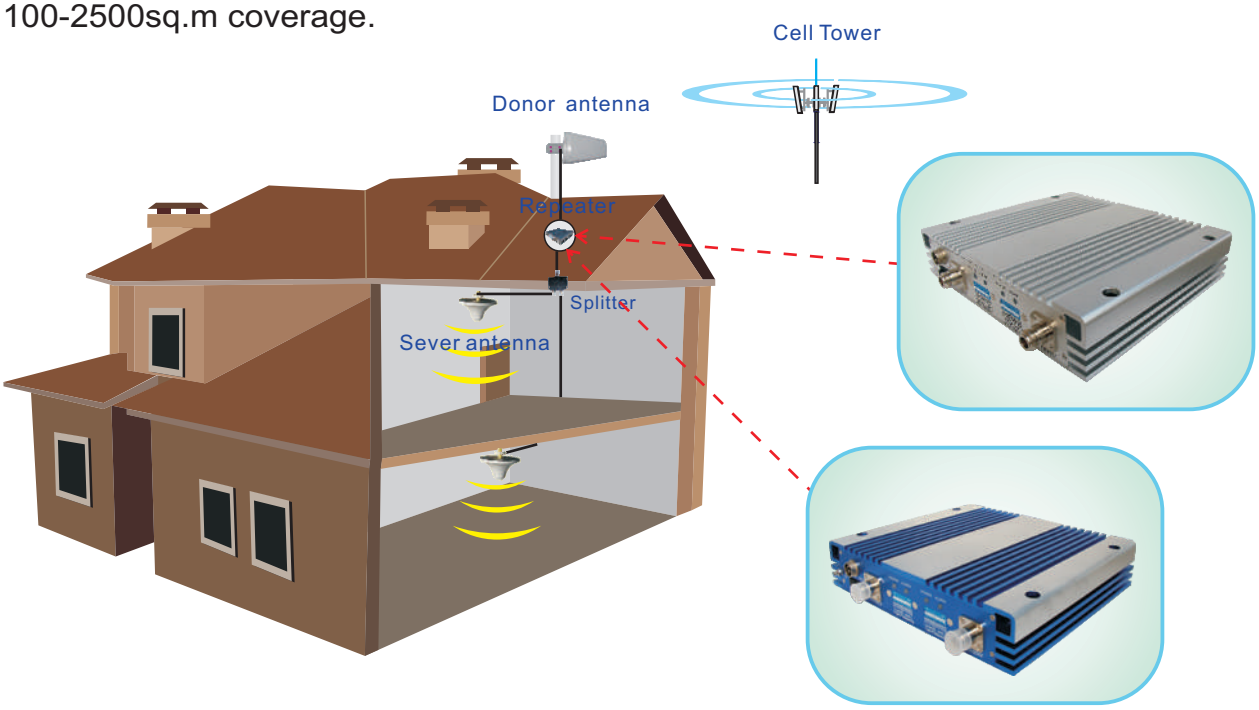
Specification:

Electrical specification	**Uplink**	**Downlink**
Frequency Range	Customized upon request	
Max .Gain	⩾ 55dB	⩾ 60dB
Max .Output Power	⩾ 10dBm	⩾ 10dBm
Band width (-3dB)	Wide Band	
MGC	⩾ 15dB / 5dB step	
ALC	⩾ 15dB,auto shut off 31dB after 15dB	
Gain Flatness	⩽6dB(P-P)	
Noise Figure	⩽6dB	
VSWR	⩽2.0	
Group Delay	⩽0.5μs	
LED Alarm	**Standard**	
Power LED	Green light when power on.	
ALC LED	Orange @ ALC 1~5dB, Red @ ALC 14dB~16dB, 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	129x155x30mm	
Weight	⩽ 1.0Kg	
Power Supply	Input AC90~264V,output DC5V / 2A	

SOLUTION OF YOUR NEED

CIW-DB13~23-F

13~23dBm dual system repeater
100-2500sq.m coverage.



Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

SYN-DB13~23-F dual system signal repeater series are designed for business places indoor coverage solution. Such as the bookstore, the restaurant, the coffee shop, the KTV, the bar, the parking pot, the super market, big office... And the area is between 100-2500sqm. Using a revolutionary, patent pending technology that protects the carrier network, the SYN-DB13~23-F dual system improves indoor cell phone signals by capturing and repeating the outside signals, bringing them into the building and enhancing them.

Advantages:

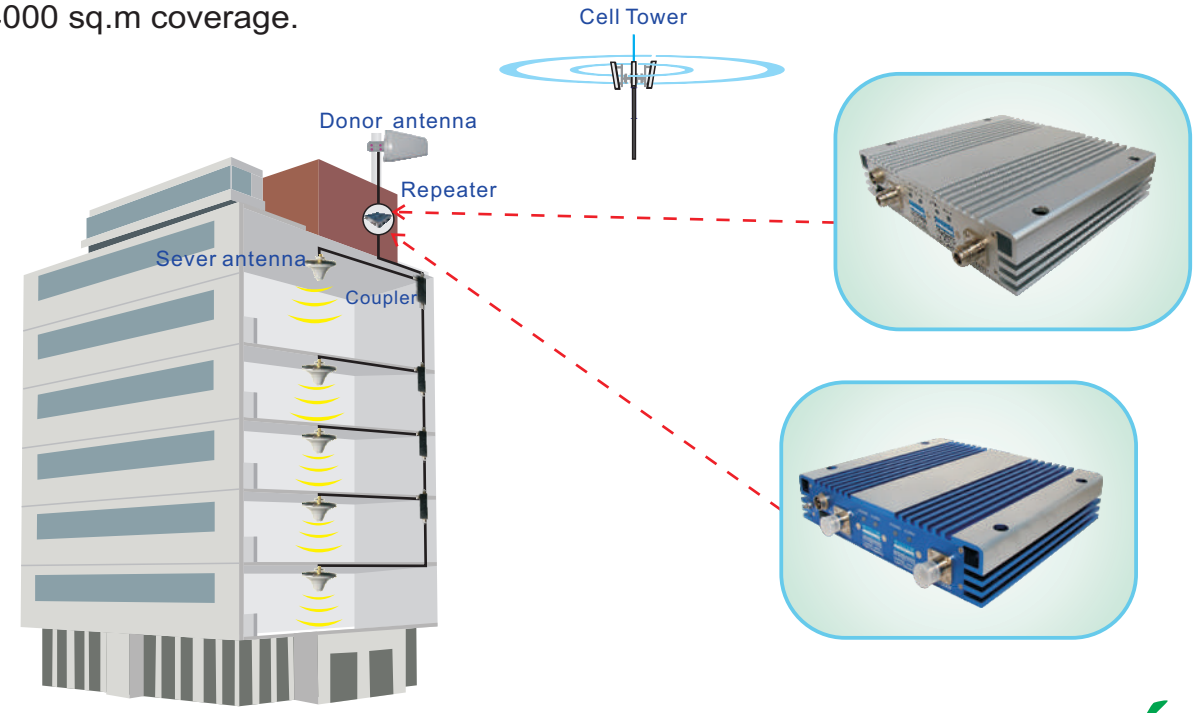
1. Elegant and compact design.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. 31dB MGC (Manual gain control) 1dB one step available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
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. Low power consumption.

Specification:

Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain	SYN-DB13-F	⩾ 60dB	⩾ 68dB
	SYN-DB15-F	⩾ 65dB	⩾ 68dB
	SYN-DB20-F	⩾ 65dB	⩾ 70dB
	SYN-DB23-F	⩾ 70dB	⩾ 75dB
Max .Output Power	SYN-DB10-F	⩾ 10dBm	⩾ 13dBm
	SYN-DB15-F	⩾ 12dBm	⩾ 15dBm
	SYN-DB20-F	⩾ 15dBm	⩾ 20dBm
	SYN-DB23-F	⩾ 15dBm	⩾ 23dBm
Band width (-3dB)		Wide Band	
MGC		⩾ 31dB / 1dB step	
ALC		⩾ 15dB,auto shut off after 15dB	
Gain Flatness		⩽6dB(P-P)	
Noise Figure		⩽6dB	
VSWR		⩽2.0	
Group Delay		⩽0.5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		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		250x220x52mm	
Weight		⩽ 3.2Kg	
Power Supply		Input AC90~264V,output DC10V / 3A	

CIW-DB27~30-F

27~30dBm dual system repeater
1500-4000 sq.m coverage.



Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

SYN-DB27~30-F dual system signal repeater series are designed for business places indoor coverage solution. Such as the bookstore, the restaurant, the coffee shop, the KTV, the bar, the parking pot, the super market, big office.... And the area is between 1500-4000sqm. Using a revolutionary, patent pending technology that protects the carrier network, the SYN-DB27~30-F dual system improves indoor cell phone signals by capturing and repeating the outside signals, bringing them into the building and enhancing them.

Advantages:

1. Elegant and compact design.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. 31dB MGC (Manual gain control) 1dB per step available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
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. Low power consumption.

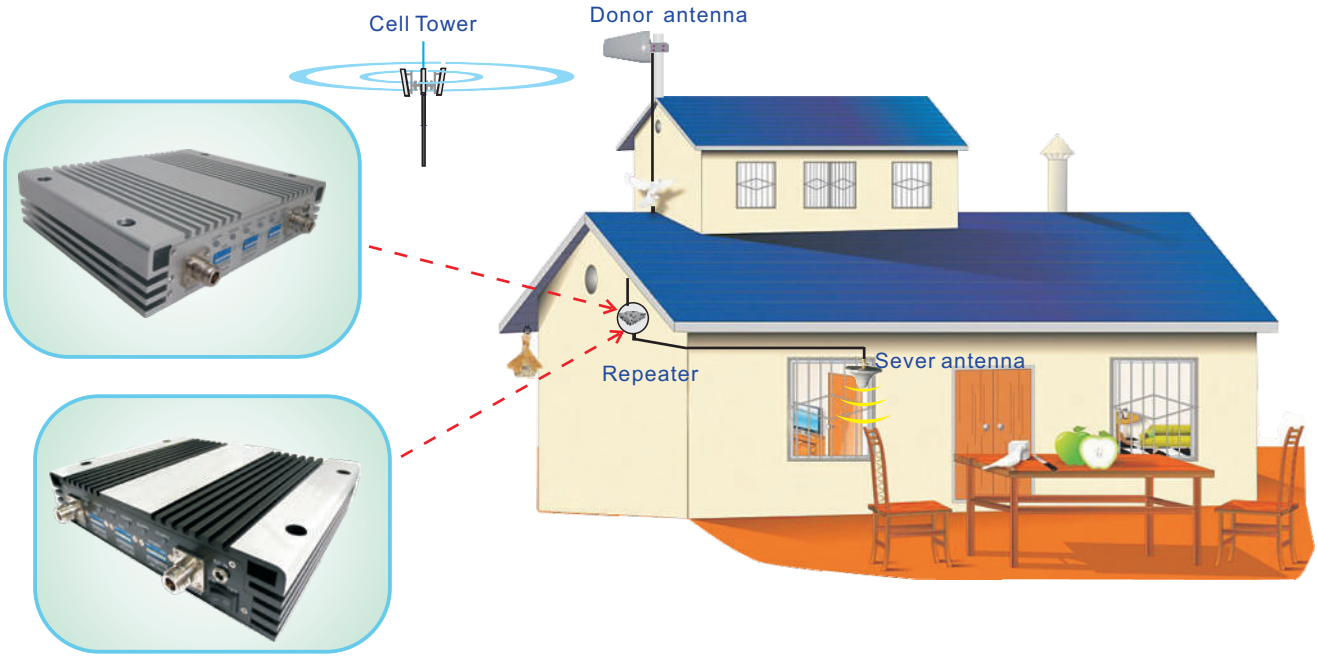
Specification:

Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain	SYN-DB27-F	⩾ 75dB	⩾ 75dB
	SYN-DB30-F	⩾ 75dB	⩾ 80dB
Max .Output Power	SYN-DB27-F	⩾ 20dBm	⩾ 27dBm
	SYN-DB30-F	⩾ 20dBm	⩾ 30dBm
Band width (-3dB)		Wide Band	
MGC		⩾ 31dB / 1dB step	
ALC		⩾ 15dB,auto shut off after 15dB	
Gain Flatness		⩽6dB(P-P)	
Noise Figure		⩽6dB	
VSWR		⩽2.0	
Group Delay		⩽0.5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		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		250x250x52mm	
Weight		⩽ 3.5Kg	
Power Supply		Input AC90~264V,output DC10V / 3A	

SOLUTION OF YOUR NEED

CIW-TB10M-F

10dBm triple system repeater
50~150 sq.m coverage.



Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

SYN-TB10M-F Triple system series are designed for the end users, who are suffering a poor or blind signal and whose house, apartment or office area is between 50-150sqm. Using a revolutionary, patent pending technology that protects the carrier network, the SYN-TB10M-F Triple system improves indoor cell phone signals by capturing and repeating the outside signals, bringing them into the building and enhancing them.

Advantages:

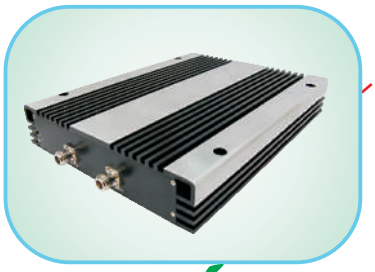
1. Elegant and compact design.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. 15dB MGC (Manual gain control)1dB per step available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
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. Low power consumption.

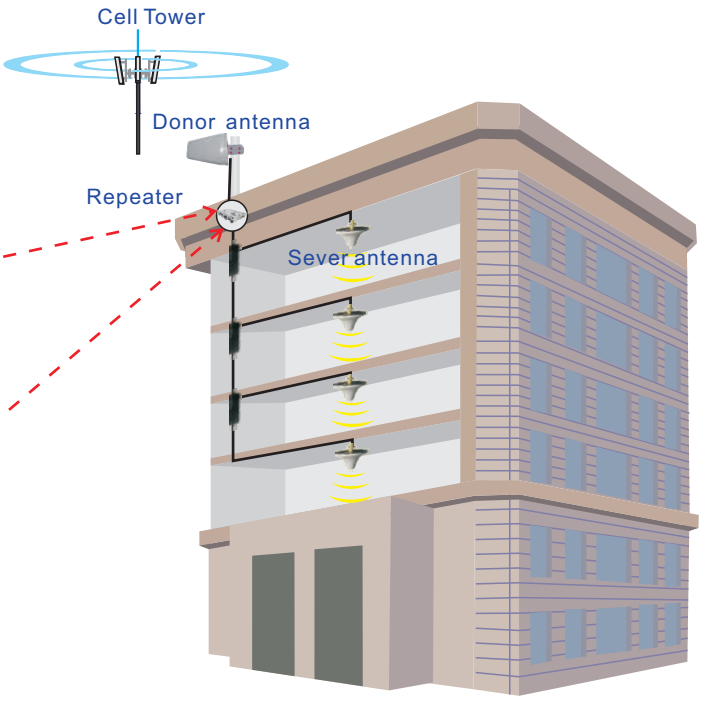
Specification:

Electrical specification	Uplink	Downlink
Frequency Range	Customized upon request	
Max .Gain	⩾ 55dB	⩾ 60dB
Max .Output Power	⩾ 10dBm	⩾ 10dBm
Band width (-3dB)	Wide Band	
MGC	⩾ 15dB / 1dB step	
ALC	⩾ 15dB,auto shut off 31dB after 15dB	
Gain Flatness	⩽6dB(P-P)	
Noise Figure	⩽6dB	
VSWR	⩽2.0	
Group Delay	⩽0.5μs	
LED Alarm	**Standard**	
Power LED	Green light when power on.	
ALC LED	Orange @ ALC 1~5dB, Red @ ALC 14dB~16dB, 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	250x193x52mm	
Weight	⩽ 2.8Kg	
Power Supply	Input AC90~264V,output DC10V / 3A	

CIW-TB13~23-F

13~23dBm triple system repeater
100-2500sq.m coverage.





Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

SYN-TB13~23-F triple system signal repeater series are designed for business places indoor coverage solution. Such as the bookstore, the restaurant, the coffee shop, the KTV, the bar, the parking pot, the super market, big office… And the area is between 100-2500sqm. Using a revolutionary, patent pending technology that protects the carrier network, the SYN-TB13~23-F triple system improves indoor cell phone signals by capturing and repeating the outside signals, bringing them into the building and enhancing them.

Advantages:

1. Elegant and compact design.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. 31dB MGC (Manual gain control) 1dB per step available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
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. Low power consumption.

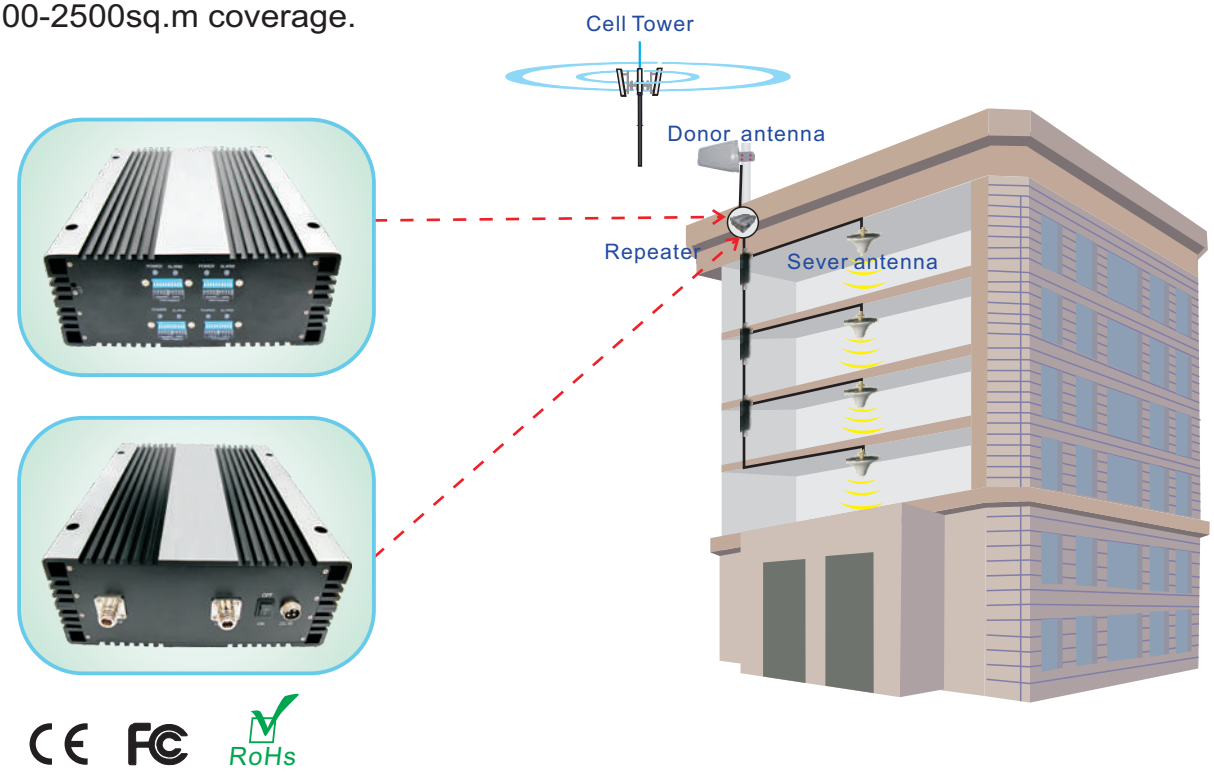
Specification:

Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain	SYN-TB13-F	⩾ 60dB	⩾ 68dB
	SYN-TB15-F	⩾ 65dB	⩾ 68dB
	SYN-TB20-F	⩾ 65dB	⩾ 70dB
	SYN-TB23-F	⩾ 70dB	⩾ 75dB
Max .Output Power	SYN-TB13-F	⩾ 10dBm	⩾ 13dBm
	SYN-TB15-F	⩾ 12dBm	⩾ 15dBm
	SYN-TB20-F	⩾ 15dBm	⩾ 20dBm
	SYN-TB23-F	⩾ 15dBm	⩾ 23dBm
Band width (-3dB)		Wide Band	
MGC		⩾ 31dB / 1dB step	
ALC		⩾ 15dB,auto shut off after 15dB	
Gain Flatness		⩽6dB(P-P)	
Noise Figure		⩽6dB	
VSWR		⩽2.0	
Group Delay		⩽0.5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		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		250x330x52mm	
Weight		⩽ 4.5Kg	
Power Supply		Input AC90~264V,output DC10V / 7A	

SOLUTION OF YOUR NEED

CIW-QB13~23-F

13~23dBm quad system repeater
100-2500sq.m coverage.



Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

SYN-QB13~23-F quad system signal repeater series are designed for business places indoor coverage solution. Such as the bookstore, the restaurant, the coffee shop, the KTV, the bar, the parking pot, the super market, big office... And the area is between 100-2500sqm. . Using a revolutionary, patent pending technology that protects the carrier network, the SYN-QB13~23-F quad system improves indoor cell phone signals by capturing and repeating the outside signals, bringing them into the building and enhancing them.

Advantages:

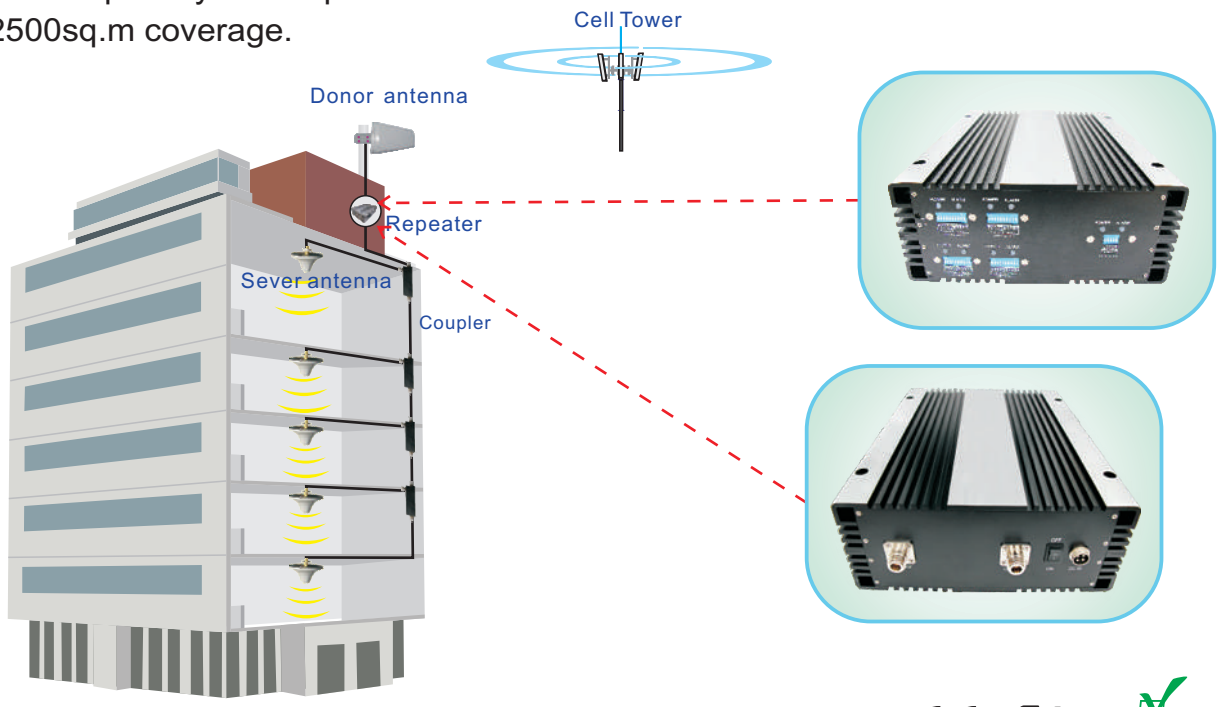
1. Elegant and compact design, and support up to quad system in one repeater. Simplifies the construction, reduces the complexity of wiring, reduce engineering cost.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. 31dB MGC (Manual gain control) 1dB per step available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
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. Low power consumption.

Specification:

Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain	SYN-QB13-F	⩾ 60dB	⩾ 68dB
	SYN-QB15-F	⩾ 65dB	⩾ 68dB
	SYN-QB20-F	⩾ 65dB	⩾ 70dB
	SYN-QB23-F	⩾ 70dB	⩾ 75dB
Max .Output Power	SYN-QB13-F	⩾ 10dBm	⩾ 13dBm
	SYN-QB15-F	⩾ 12dBm	⩾ 15dBm
	SYN-QB20-F	⩾ 15dBm	⩾ 20dBm
	SYN-QB23-F	⩾ 15dBm	⩾ 23dBm
Band width (-3dB)		Wide Band	
MGC		⩾ 31dB / 1dB step	
ALC		⩾ 15dB,auto shut off after 15dB	
Gain Flatness		⩽6dB(P-P)	
Noise Figure		⩽6dB	
VSWR		⩽2.0	
Group Delay		⩽0.5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		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		250x330x104mm	
Weight		⩽ 9.0Kg	
Power Supply		Input AC90~264V,output DC10V / 7A	

CIW-FB13~23-F

13~23dBm quad system repeater
100-2500sq.m coverage.



Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

SYN-FB13~23-F five system series are designed for the end users, who are suffering a poor or blind signal and whose house, apartment or office area is between 100-2500sqm. Using a revolutionary, patent pending technology that protects the carrier network, the SYN-FB13~23-F five system improves indoor cell phone signals by capturing and repeating the outside signals, bringing them into the building and enhancing them.

Advantages:

1. Elegant and compact design, and support up to five system in one repeater. Simplifies the construction, reduces the complexity of wiring, reduce engineering cost.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. 31dB MGC (Manual gain control) 1dB per step available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
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. Low power consumption.

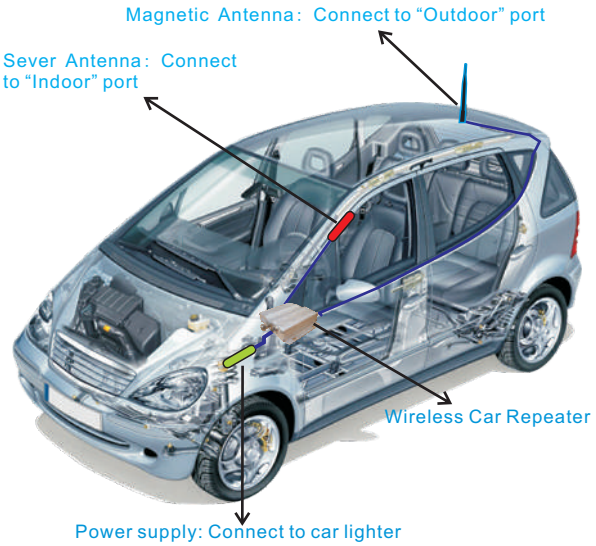
Specification:

Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain	SYN-FB13-F	⩾ 60dB	⩾ 68dB
	SYN-FB15-F	⩾ 65dB	⩾ 68dB
	SYN-FB20-F	⩾ 65dB	⩾ 70dB
	SYN-FB23-F	⩾ 70dB	⩾ 75dB
Max .Output Power	SYN-FB13-F	⩾ 10dBm	⩾ 13dBm
	SYN-FB15-F	⩾ 12dBm	⩾ 15dBm
	SYN-FB20-F	⩾ 15dBm	⩾ 20dBm
	SYN-FB23-F	⩾ 15dBm	⩾ 23dBm
Band width (-3dB)		Wide Band	
MGC		⩾ 31dB / 1dB step	
ALC		⩾ 15dB,auto shut off after 15dB	
Gain Flatness		⩽6dB(P-P)	
Noise Figure		⩽6dB	
VSWR		⩽2.0	
Group Delay		⩽0.5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		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		250x330x104mm	
Weight		⩽ 9Kg	
Power Supply		Input AC90~264V,output DC10V / 7A	

SOLUTION OF YOUR NEED

CIW-33-C

Wireless Car Repeater
Coverage for car / boat
Single/dual system



Remark: After install SYN-33-C in a car, it's better for the signal communication when transmitting through the tunnel, mountainous area, forest or gorge.

Remark: Providing good signal for communication and extending the receiving and transmitting distance from BTS after you install a car repeater.

Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

The small car is just like a big shielding box and it usually cuts off mobile signal. Especially in the tunnel, mountains, forests, wild where is far from the base station, the user couldn't have a good call in the car.

The wireless car repeater is specially designed to optimize the phone signal in a car. The magnetic antenna on the top of car receives the signal from BTS and transmits the signal to the car booster by cable; the car repeater amplifies the BTS's signal and transmits the signal to the inside of car. The same way, uplink transmits the signal in opposite direction. So people who used car repeater could have a good call when they when transmitting through the tunnel, mountainous area, forest or gorge.

Wireless car repeater don't need the mobile phone to be connected, the car repeater would amplify and transmit the signals wirelessly inside the covered areas, therefore people can move around to make a phone call, though they are limited to a 1~3 meter radius.

Specification:

Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain		⩾ 40dB	⩾ 45dB
Max .Output Power		⩾ 33dBm	⩾ 0dBm
Band width		Wide Band	
Noise Figure		⩽6dB	
VSWR		⩽1.8	
Group Delay		⩽0.5μs	
Mechanical Specifications		**Standard**	
I /O Port		N-Female	
Impedance		50 ohm	
Operating Temperature		-25°C~+55°C	
Environment Conditions		IP40	
Dimensions	Single system	129x95x30mm	
	Dual system	129x155x30mm	
Weight	Single system	⩽ 0.8Kg	
	Dual system	⩽ 1.0Kg	
Power Supply		DC12V / 3A	

CIW-20-E

20dBm elevator repeater
Coverage for elevator
Single/dual system

Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

The elevator car is just like a big shielding box and it usually cuts off mobile signal. People are always very upset that: they are calling normally outside of the elevator and the call will drop at once when they enter into the elevator car.

The elevator repeater is specially designed to optimize the phone signal in a elevator. The donor antenna on the top of elevator car receives the signal from BTS and transmits the signal to the elevator repeater by cable; the elevator repeater amplifies the BTS's signal and transmits the signal to the inside of elevator car. The same way, it transmit the signal in opposite direction. So people wouldn't worried about dropping call when they enter into elevator car.

Advantages:

1. Elegant and compact design.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. Adaption function, which can automatically control the gain of the repeater depending upon the strength of input signals, so that the link balance.

Specification:

Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain		⩾ 40dB	⩾ 45dB
Max .Output Power		⩾ 20dBm	⩾ 0dBm
Band width (-3dB)		Wide Band	
ALC		⩾ 31dB	
Noise Figure		⩽6dB	
VSWR		⩽1.8	
Group Delay		⩽0.5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		Orange @ ALC 1~5dB, Red @ ALC 31dB~35dB	
Mechanical Specifications		**Standard**	
I /O Port		N-Female	
Impedance		50 ohm	
Operating Temperature		-25°C~+55°C	
Environment Conditions		IP40	
Dimensions	Single system	129x95x30mm	
	Dual system	129x155x30mm	
Weight	Single system	⩽ 0.8Kg	
	Dual system	⩽ 1.0Kg	
Power Supply		Input AC90~264V,output DC5V / 2A	

Industrial Band Selective Repeater

Industrial band selective repeaters are designed to amplify specific sub blocks of the mobile system that usually belong to one specific mobile operator. It could help the operator optimize itself networks without affecting the other operators.

This kind repeater are strictly made to comply ETSI, 3GPP and 3GPP+ standards. And its indicators of his specification is very good.

The repeater can be locally and remotely monitored and controlled through its monitor module by OMT or OMC software. (Optional)

Nomenclature:

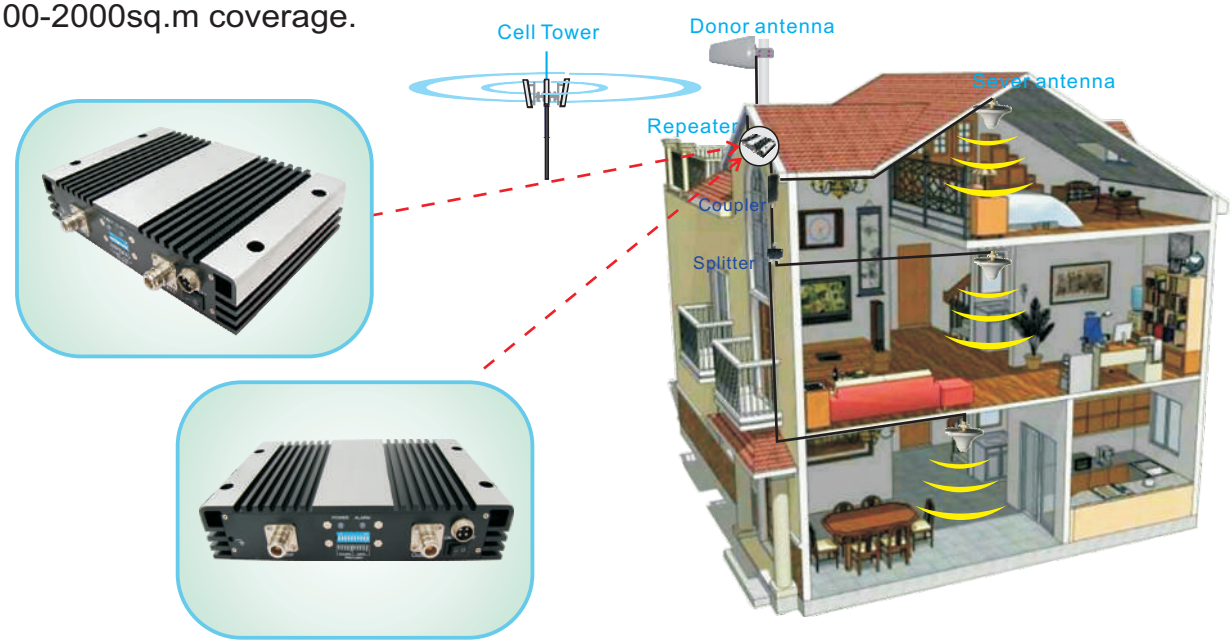
SYN — 2G 3D 1W 20 — S

- S — Selective band
- 20 — Max. output power: 10~43dBm
- 1W — 1 sub block in WCDMA
- 3D — 3 sub blocks in DCS
- 2G — 2 sub blocks in GSM
- SYN — Our company name

G--GSM	C--CDMA or GSM850
E--EGSM	P-- CDMA1900 or PCS
D--DCS	W--WCDMA
A--AWS	L--LTE

CIW-10~20-S

10~20dBm single system
Band selective repeater
Multi sub-bands
100-2000sq.m coverage.



Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

SYN-10~20-S single system signal repeater series are designed for the mobile operator indoor coverage solution. They are used in the some hot sites, where have the high traffics and are not worth to install a Micro BTS. Using the band selective repeater can easily realize the fast coverage.

The mobile operator could use it to amplify its own signal only and make it better than the signal of rivals which can lead the competition.

Advantages:

1 With IF SAW filter technology for good out of band rejection, the band selective repeaters are designed to selective specific sub-bands of mobile system.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. 31dB MGC (Manual gain control) 1dB per step available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
4. The repeater can be locally and remotely monitored and controlled through its monitor module by OMT or OMC software. (Optional)

Specification:

Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain	SYN-10-S	⩾ 60dB	⩾ 65dB
	SYN-15-S	⩾ 65dB	⩾ 65dB
	SYN-20-S	⩾ 65dB	⩾ 70dB
Max .Output Power	SYN-10-S	⩾ 10dBm	⩾ 10dBm
	SYN-15-S	⩾ 12dBm	⩾ 15dBm
	SYN-20-S	⩾ 15dBm	⩾ 20dBm
Band width (-3dB)		Available upon request	
MGC		⩾ 31dB / 1dB step	
ALC		⩾ 20dB	
Gain Flatness		⩽3dB(P-P)	
Noise Figure		⩽6dB	
VSWR		⩽1.8	
Group Delay		⩽5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		Orange @ ALC 1~5dB, Red @ ALC 20dB~25dB	
Mechanical Specifications		**Standard**	
I /O Port		N-Female	
Impedance		50 ohm	
Operating Temperature		-25ºC~+55ºC	
Environment Conditions		IP40	
Dimensions		250x165x52mm	
Weight		⩽ 2.5Kg	
Power Supply		Input AC90~264V,output DC10V / 3A	
Software		**Optional**	
Local/Remote Monitoring		Via USB Port or SMS or GPRS Moem	

Solution of Your Need

CIW-23~30-S

23~30dBm single system
Band selective repeater
Multi sub-bands
2500-5000sq.m coverage.

Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

SYN-23~30-S single system signal repeater series are designed for the mobile operator indoor coverage solution. They are used in the some hot sites, where have the high traffics and are not worth to install a Micro BTS. Using the band selective repeater can easily realize the fast coverage.

The mobile operator could use it to amplify its own signal only and make it better than the signal of rivals which can lead the competition.

Advantages:

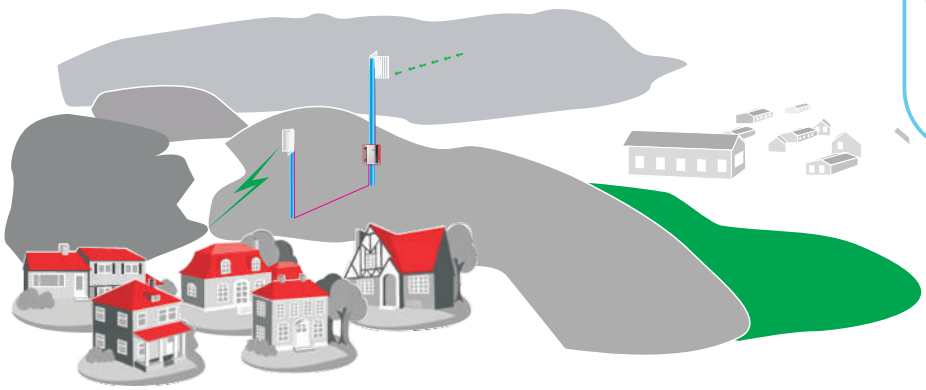
1 With IF SAW filter technology for good out of band rejection, the band selective repeaters are designed to selective specific sub-bands of mobile system.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. 31dB MGC (Manual gain control) 1dB per step available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
4. The repeater can be locally and remotely monitored and controlled through its monitor module by OMT or OMC software. (Optional)

Specification:

Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain	SYN-23-S	⩾ 70dB	⩾ 75dB
	SYN-27-S	⩾ 75dB	⩾ 75dB
	SYN-30-S	⩾ 75dB	⩾ 80dB
Max .Output Power	SYN-23-S	⩾ 15dBm	⩾ 23dBm
	SYN-27-S	⩾ 20dBm	⩾ 27dBm
	SYN-30-S	⩾ 20dBm	⩾ 30dBm
Band width (-3dB)		Available upon request	
MGC		⩾ 31dB / 1dB step	
ALC		⩾ 20dB	
Gain Flatness		⩽3dB(P-P)	
Noise Figure		⩽6dB	
VSWR		⩽1.8	
Group Delay		⩽5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		Orange @ ALC 1~5dB, Red @ ALC 20dB~25dB	
Mechanical Specifications		**Standard**	
I /O Port		N-Female	
Impedance		50 ohm	
Operating Temperature		-25°C~+55°C	
Environment Conditions		IP40	
Dimensions		250x220x52mm	
Weight		⩽ 3.2Kg	
Power Supply		Input AC90~264V,output DC12V / 7A	
Software		**Optional**	
Local/Remote Monitoring		Via USB Port or SMS or GPRS Moem	

CIW-33~43-S

33~43dBm single system
Band selective repeater
Multi sub-bands
Outdoor coverage.



Description:

Specification:

Electrical specification		Uplink	Downlink
Frequency Range		Customized upon request	
Max .Gain	SYN-33-S	⩾ 80dB	⩾ 83dB
	SYN-37-S	⩾ 83dB	⩾ 87dB
	SYN-40-S	⩾ 85dB	⩾ 90dB
	SYN-43-S	⩾ 85dB	⩾ 90dB
Max .Output Power	SYN-33-S	⩾ 20dBm	⩾ 33dBm
	SYN-37-S	⩾ 25dBm	⩾ 37dBm
	SYN-40-S	⩾ 25dBm	⩾ 40dBm
	SYN-43-S	⩾ 25dBm	⩾ 43dBm
Band width (-3dB)		Available upon request	
MGC		⩾ 31dB / 1dB step	
ALC		⩾ 20dB	
Gain Flatness		⩽3dB(P-P)	
Noise Figure		⩽6dB	
VSWR		⩽1.5	
Group Delay		⩽5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		Orange @ ALC 1~5dB, Red @ ALC 20dB~25dB	
Mechanical Specifications		**Standard**	
I /O Port		N-Female	
Impedance		50 ohm	
Operating Temperature		-25°C~+55°C	
Environment Conditions		IP55	
Dimensions		435x325x135mm/ 565x400x210mm	
Weight		⩽ 15Kg/35kg	
Power Supply		Input AC90~264V	
Software		**Optional**	
Local/Remote Monitoring		Via USB Port or SMS or GPRS Moem	

SOLUTION OF YOUR NEED

CIW-DB10~20-S

10~20dBm dual system
Band selective repeater
Multi sub-bands
100-2000sq.m coverage.

Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

SYN-DB10~20-S dual system signal repeater series are designed for the mobile operator indoor coverage solution. They are used in the some hot sites, where have the high traffics and are not worth to install a Micro BTS. Using the band selective repeater can easily realize the fast coverage.

The mobile operator could use it to amplify its own signal only and make it better than the signal of rivals which can lead the competition.

Advantages:

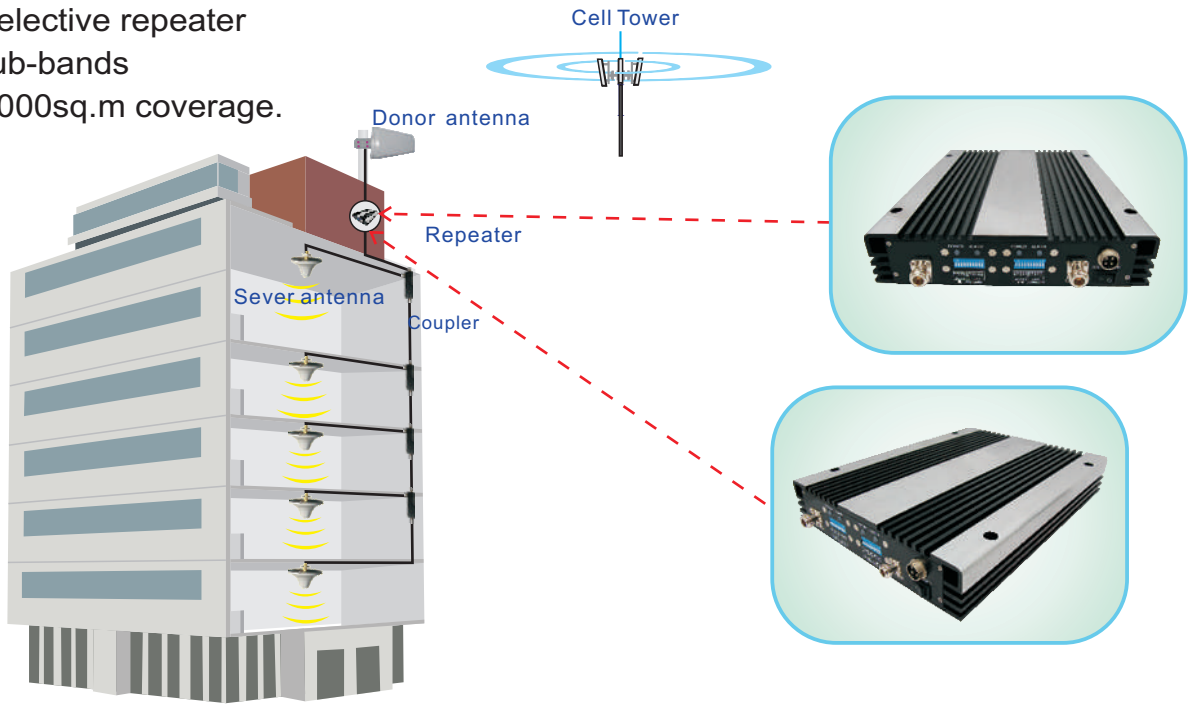
1 With IF SAW filter technology for good out of band rejection, the band selective repeaters are designed to selective specific sub-bands of mobile system.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. 31dB MGC (Manual gain control) 1dB per step available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
4. The repeater can be locally and remotely monitored and controlled through its monitor module by OMT or OMC software. (Optional)

Specification:

Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain	SYN-DB10-S	⩾ 60dB	⩾ 65dB
	SYN-DB15-S	⩾ 65dB	⩾ 65dB
	SYN-DB20-S	⩾ 65dB	⩾ 70dB
Max .Output Power	SYN-DB10-S	⩾ 10dBm	⩾ 10dBm
	SYN-DB15-S	⩾ 12dBm	⩾ 15dBm
	SYN-DB20-S	⩾ 15dBm	⩾ 20dBm
Band width (-3dB)		Available upon request	
MGC		⩾ 31dB / 1dB step	
ALC		⩾ 20dB	
Gain Flatness		⩽3dB(P-P)	
Noise Figure		⩽6dB	
VSWR		⩽2.0	
Group Delay		⩽5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		Orange @ ALC 1~5dB, Red @ ALC 20dB~25dB	
Mechanical Specifications		**Standard**	
I /O Port		N-Female	
Impedance		50 ohm	
Operating Temperature		-25°C~+55°C	
Environment Conditions		IP40	
Dimensions		250x300x52mm	
Weight		⩽ 4.5Kg	
Power Supply		Input AC90~264V,output DC10V / 7A	
Software		**Optional**	
Local/Remote Monitoring		Via USB Port or SMS or GPRS Moem	

CIW-DB23~30-S

23~30dBm dual system
Band selective repeater
Multi sub-bands
2500-5000sq.m coverage.



Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

SYN-DB23~30-S dual system signal repeater series are designed for the mobile operator indoor coverage solution. They are used in the some hot sites, where have the high traffics and are not worth to install a Micro BTS. Using the band selective repeater can easily realize the fast coverage.

The mobile operator could use it to amplify its own signal only and make it better than the signal of rivals which can lead the competition.

Advantages:

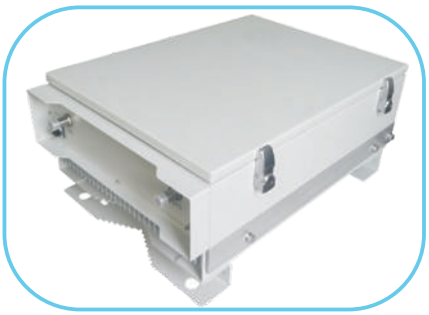
1 With IF SAW filter technology for good out of band rejection, the band selective repeaters are designed to selective specific sub-bands of mobile system.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. 31dB MGC (Manual gain control) 1dB per step available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
4. The repeater can be locally and remotely monitored and controlled through its monitor module by OMT or OMC software. (Optional)

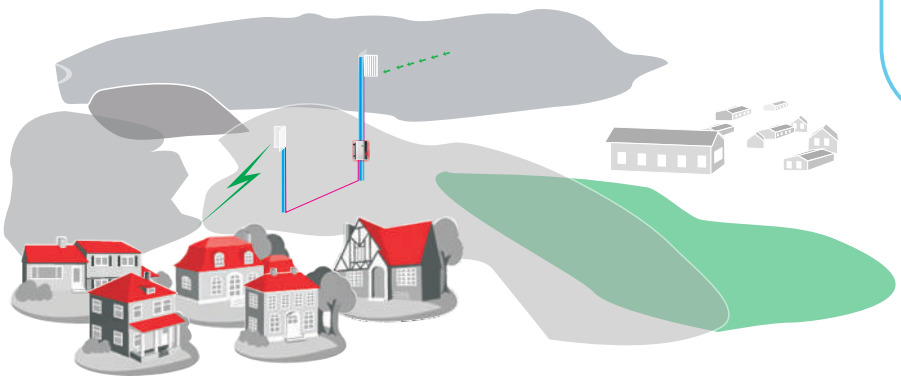
Specification:

Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain	SYN-DB23-S	⩾ 70dB	⩾ 75dB
	SYN-DB27-S	⩾ 75dB	⩾ 75dB
	SYN-DB30-S	⩾ 75dB	⩾ 80dB
Max .Output Power	SYN-DB23-S	⩾ 15dBm	⩾ 23dBm
	SYN-DB27-S	⩾ 20dBm	⩾ 27dBm
	SYN-DB30-S	⩾ 20dBm	⩾ 30dBm
Band width (-3dB)		Available upon request	
MGC		⩾ 31dB / 1dB step	
ALC		⩾ 20dB	
Gain Flatness		⩽3dB(P-P)	
Noise Figure		⩽6dB	
VSWR		⩽1.8	
Group Delay		⩽5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		Orange @ ALC 1~5dB, Red @ ALC 20dB~25dB	
Mechanical Specifications		**Standard**	
I /O Port		N-Female	
Impedance		50 ohm	
Operating Temperature		-25ºC~+55ºC	
Environment Conditions		IP40	
Dimensions		250x330x52mm	
Weight		⩽ 4.5Kg	
Power Supply		Input AC90~264V,output DC12V / 7A	
Software		**Optional**	
Local/Remote Monitoring		Via USB Port or SMS or GPRS Moem	

CIW-DB33~37-S

33~37dBm dual system
Band selective repeater
Multi sub-bands
Outdoor coverage.





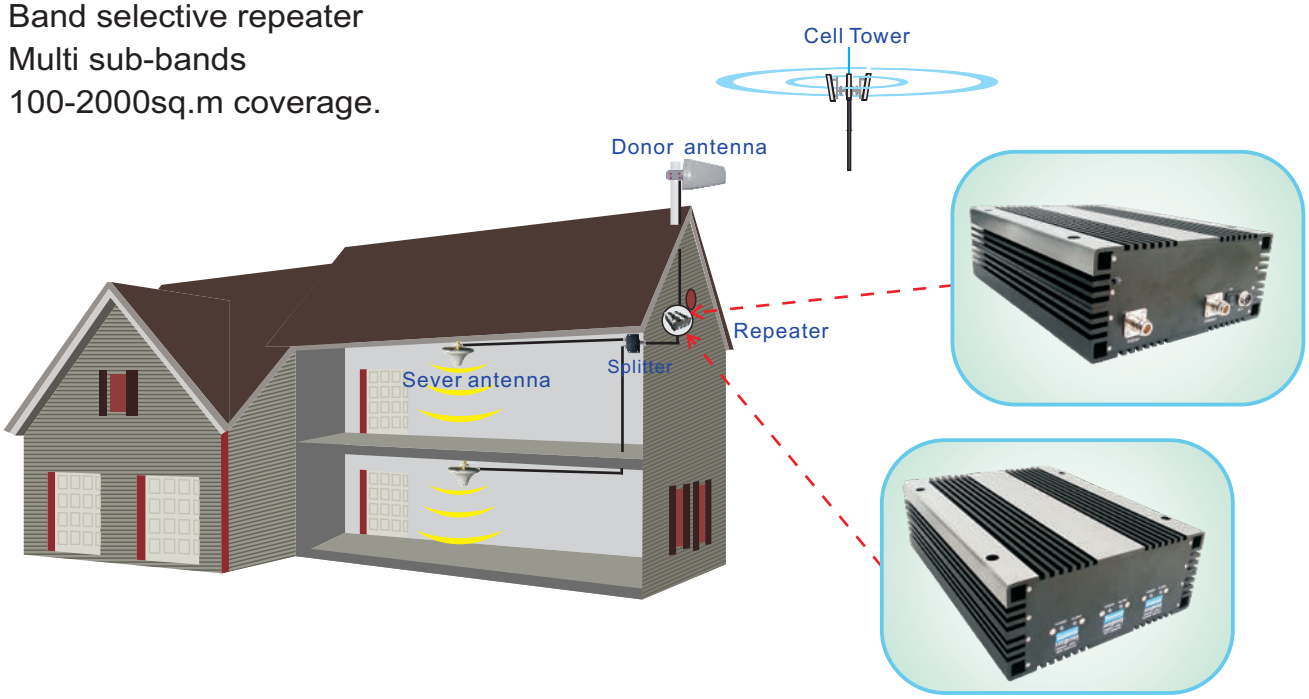
Description:

Specification:

Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain	SYN-DB33-S	⩾ 80dB	⩾ 83dB
	SYN-DB37-S	⩾ 83dB	⩾ 87dB
Max .Output Power	SYN-DB33-S	⩾ 20dBm	⩾ 33dBm
	SYN-DB37-S	⩾ 25dBm	⩾ 37dBm
Band width (-3dB)		Available upon request	
MGC		⩾ 31dB / 1dB step	
ALC		⩾ 20dB	
Gain Flatness		⩽3dB(P-P)	
Noise Figure		⩽6dB	
VSWR		⩽1.5	
Group Delay		⩽5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		Orange @ ALC 1~5dB, Red @ ALC 20dB~25dB	
Mechanical Specifications		**Standard**	
I /O Port		N-Female	
Impedance		50 ohm	
Operating Temperature		-25°C~+55°C	
Environment Conditions		IP55	
Dimensions		435x325x135mm/ 565x400x210mm	
Weight		⩽ 15Kg/35kg	
Power Supply		Input AC90~264V	
Software		**Optional**	
Local/Remote Monitoring		Via USB Port or SMS or GPRS Moem	

CIW-T10~20-S

10~20dBm Triple system
Band selective repeater
Multi sub-bands
100-2000sq.m coverage.



Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

SYN-TB10~20-S triple system signal repeater series are designed for the mobile operator indoor coverage solution. They are used in the some hot sites, where have the high traffics and are not worth to install a Micro BTS. Using the band selective repeater can easily realize the fast coverage.

The mobile operator could use it to amplify its own signal only and make it better than the signal of rivals which can lead the competition.

Advantages:

1 With IF SAW filter technology for good out of band rejection, the band selective repeaters are designed to selective specific sub-bands of mobile system.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. 31dB MGC (Manual gain control) 1dB per step available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
4. The repeater can be locally and remotely monitored and controlled through its monitor module by OMT or OMC software. (Optional)

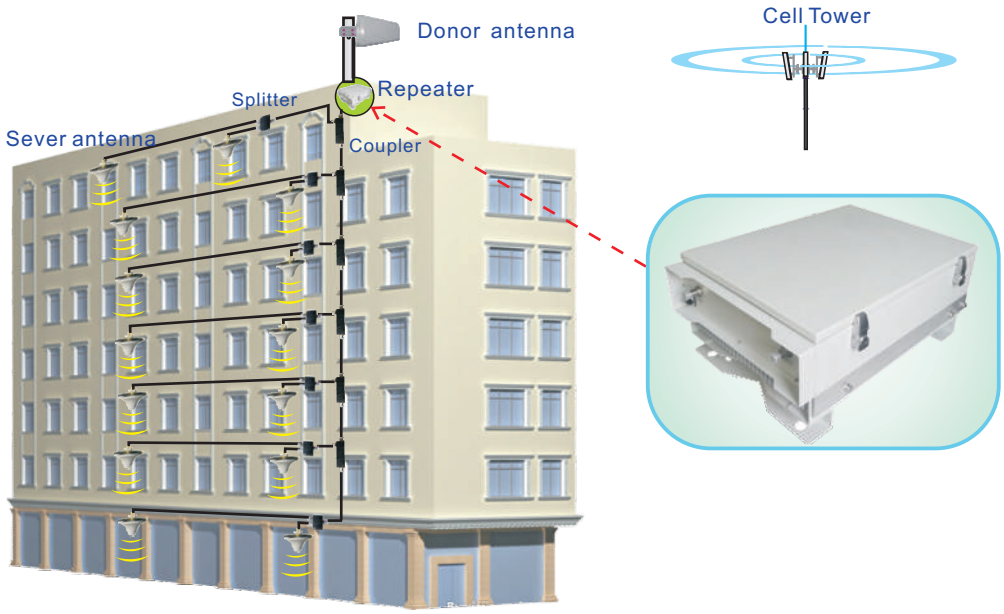
Specification:

Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain	SYN-TB10-S	⩾ 60dB	⩾ 65dB
	SYN-TB15-S	⩾ 65dB	⩾ 65dB
	SYN-TB20-S	⩾ 65dB	⩾ 70dB
Max .Output Power	SYN-TB10-S	⩾ 10dBm	⩾ 10dBm
	SYN-TB15-S	⩾ 12dBm	⩾ 15dBm
	SYN-TB20-S	⩾ 15dBm	⩾ 20dBm
Band width (-3dB)		Available upon request	
MGC		⩾ 31dB / 1dB step	
ALC		⩾ 20dB	
Gain Flatness		⩽3dB(P-P)	
Noise Figure		⩽6dB	
VSWR		⩽2.0	
Group Delay		⩽5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		Orange @ ALC 1~5dB, Red @ ALC 20dB~25dB	
Mechanical Specifications		**Standard**	
I /O Port		N-Female	
Impedance		50 ohm	
Operating Temperature		-25°C~+55°C	
Environment Conditions		IP40	
Dimensions		250x330x104mm	
Weight		⩽ 9Kg	
Power Supply		Input AC90~264V,output DC10V / 7A	
Software		**Optional**	
Local/Remote Monitoring		Via USB Port or SMS or GPRS Moem	

SOLUTION OF YOUR NEED

CIW-TB23~30-S

23~30dBm triple system
Band selective repeater
Multi sub-bands
2500-5000sq.m coverage.



Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

SYN-TB23~30-S triple system signal repeater series are designed for the mobile operator indoor coverage solution. They are used in the some hot sites, where have the high traffics and are not worth to install a Micro BTS. Using the band selective repeater can easily realize the fast coverage.

The mobile operator could use it to amplify its own signal only and make it better than the signal of rivals which can lead the competition.

Advantages:

1 With IF SAW filter technology for good out of band rejection, the band selective repeaters are designed to selective specific sub-bands of mobile system.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. 31dB MGC (Manual gain control) 1dB per step available for both uplink and downlink to adjust the gain value for proper coverage during installation or maintenance.
4. The repeater can be locally and remotely monitored and controlled through its monitor module by OMT or OMC software. (Optional)

Specification:

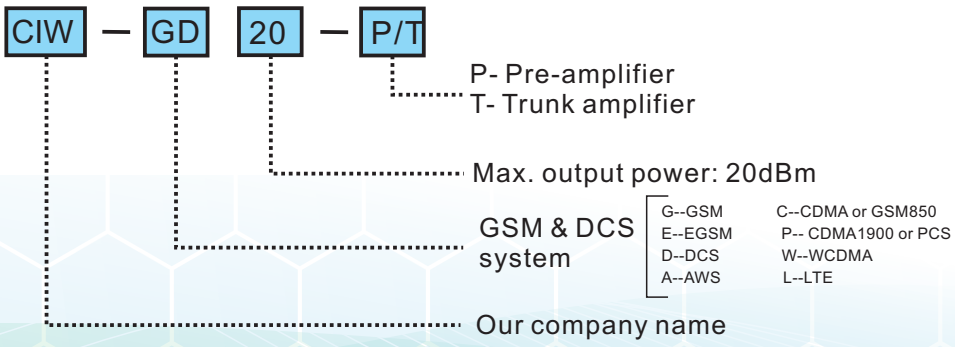
Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain	SYN-TB23-S	⩾ 70dB	⩾ 75dB
	SYN-TB27-S	⩾ 75dB	⩾ 75dB
	SYN-TB30-S	⩾ 75dB	⩾ 80dB
Max .Output Power	SYN-TB23-S	⩾ 15dBm	⩾ 23dBm
	SYN-TB27-S	⩾ 20dBm	⩾ 27dBm
	SYN-TB30-S	⩾ 20dBm	⩾ 30dBm
Band width (-3dB)		Wide Band	
MGC		⩾ 31dB / 1dB step	
ALC		⩾ 20dB	
Gain Flatness		⩽3dB(P-P)	
Noise Figure		⩽6dB	
VSWR		⩽2.0	
Group Delay		⩽5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		Orange @ ALC 1~5dB, Red @ ALC 20dB~25dB	
Mechanical Specifications		**Standard**	
I /O Port		N-Female	
Impedance		50 ohm	
Operating Temperature		-25°C~+55°C	
Environment Conditions		IP40	
Dimensions		400x325x120mm	
Weight		⩽ 25Kg	
Power Supply		Input AC90~264V	
Software		**Optional**	
Local/Remote Monitoring		Via USB Port or SMS or GPRS Moem	

Pre-amplifier & Trunk amplifier

In the practical application, some sites are far from the base station. The input power of the repeater is weaker than the normal power level, and the repeater couldn't reach its full output power for a much larger coverage size. Then the pre-ampifier could be utilized to boost the input signals to reasonable level, so that the repeater can work with full output power for ideal coverage.

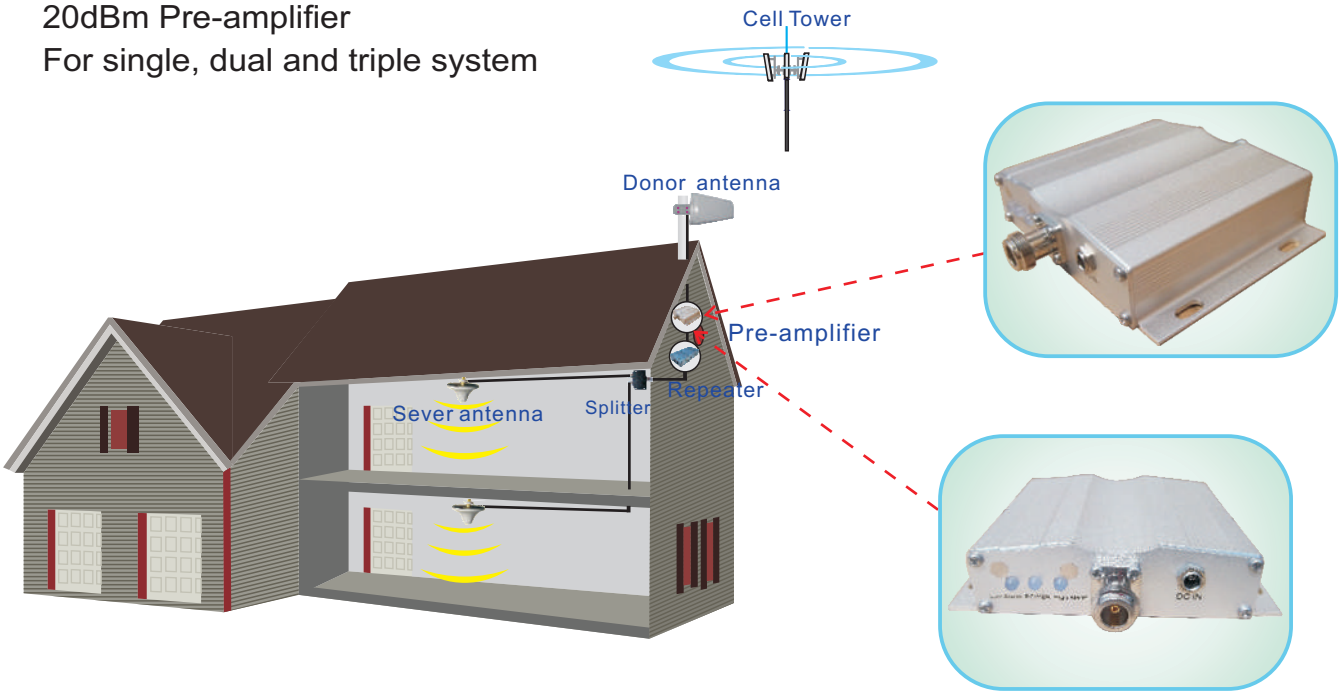
Trunk amplifier is also a special repeater with 20dB gain both link and 20dBm output power in downlink. In some site, we could add one or more trunk amplifiers in one project link to achieved a quite large coverage. Each trunk amplifier will provide an additional 20dBm power level, enough to cover between 1000~3000 square meters. And if the capacity of donor signals are sufficient, more than 20 trunk amplifiers can be deployed, thus a quite large coverage can be achieved.

Nomenclature:



CIW-20-P

20dBm Pre-amplifier
For single, dual and triple system



Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

In the practical application, some sites are far from the base station. The input power of the repeater is weaker than the normal power level, and the repeater couldn't reach its full output power for a much larger coverage size. Then the pre-ampifier could be utilized to boost the input signals to reasonable level, so that the repeater can work with full output power for ideal coverage.

As we know, some pico repeaters only get 5~15dBm in UL and in some remote area the uplink mobile signal wouldn't be strong enough to go back. That's why the phone calls can't be initiated even if we can see full bar signals on the mobile phone. However, we can enhance uplink signal up to 20dBm by adding a pre-amplifier before the repeater. And then the uplink signal can reach base station, and we have a good call in this practical application.

Advantages:

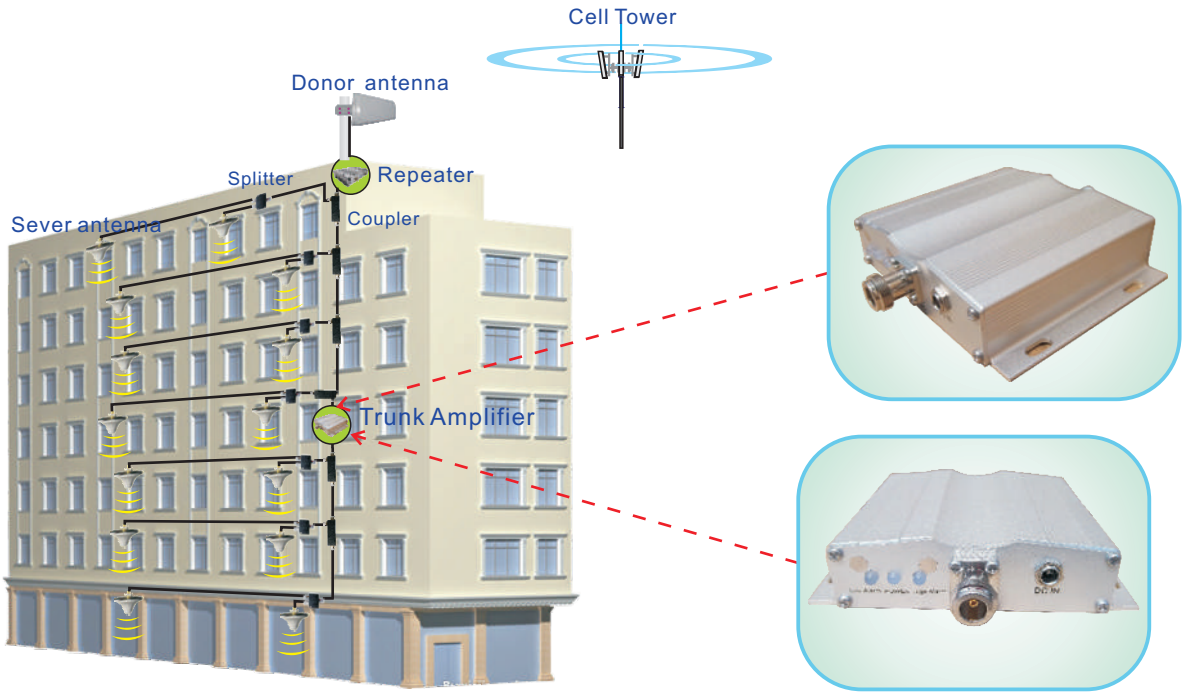
1 Elegant and compact design.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. Single system, dual system and triple system pre-amplifier could be tailor made by the client.

Specification:

Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain		⩾ 20dB	⩾ 20dB
Max .Output Power		⩾ 20dBm	⩾ 0dBm
Band width (-3dB)		Wide Band	
ALC		⩾ 20dB	----
Noise Figure		----	⩽6dB
VSWR		⩽1.8	
Group Delay		⩽1.5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		Orange @ ALC 10dB	
Mechanical Specifications		**Standard**	
I /O Port		N-Female	
Impedance		50 ohm	
Operating Temperature		-25ºC~+55ºC	
Environment Conditions		IP40	
Dimensions	Single system	129×95×30mm	
	Dual system	129×155×30mm	
	Triple system	250×193×52mm	
Weight	Single system	⩽ 0.8Kg	
	Dual system	⩽ 1.0Kg	
	Triple system	⩽ 2.5Kg	
Power Supply		Input AC90~264V, Output DC5V/2A or 10V/3A	

CIW-20~T

20dBm Trunk Amplifier
For single, dual and triple system



Description:

Overview:

Work Frequency: CDMA450, LTE700(A/B/C/D), IDEN800, CDMA800, GSM900 & EGSM, DCS1800, PCS1900, CDMA2000, WCDMA2100, AWS2100, LTE2600 and so on.

Trunk amplifier is also a special repeater with 20dB gain both link and 20dBm output power in downlink. In some site, we could add one or more trunk amplifiers in one project link to achieved a quite large coverage. Each line amplifier will provide an additional 20dBm power level, enough to cover between 1000~3000 square meters. And if the capacity of donor signals are sufficient, more than 20 trunk amplifiers can be deployed, thus a quite large coverage can be achieved.

In some special solution, the cable maybe runs too long and it will loss much signal. We could add a trunk amplifier into the main cable line to boost the signals again.

Advantages:

1 Elegant and compact design.
2. Built-in AGC and ALC circuits, which can automatically control the gain of the repeater depending upon the strength of input signals.
3. Single system, dual system and triple system trunk amplifier could be tailor made by the client.

Specification:

Electrical specification		**Uplink**	**Downlink**
Frequency Range		Customized upon request	
Max .Gain		⩾ 20dB	⩾ 20dB
Max .Output Power		⩾ 0dBm	⩾ 20dBm
Band width (-3dB)		Wide Band	
ALC		----	⩾ 20dB
Noise Figure		⩽6dB	----
VSWR		⩽1.8	
Group Delay		⩽1.5μs	
LED Alarm		**Standard**	
Power LED		Green light when power on.	
ALC LED		Orange @ ALC 10dB	
Mechanical Specifications		**Standard**	
I /O Port		N-Female	
Impedance		50 ohm	
Operating Temperature		-25ºC~+55ºC	
Environment Conditions		IP40	
Dimensions	Single system	129×95×30mm	
	Dual system	129×155×30mm	
	Triple system	250×193×52mm	
Weight	Single system	⩽ 0.8Kg	
	Dual system	⩽ 1.0Kg	
	Triple system	⩽ 2.5Kg	
Power Supply		Input AC90~264V, Output DC5V/2A or 10V/3A	