

SmartCell - Modular System In-Building Digital Quad-Band Repeater

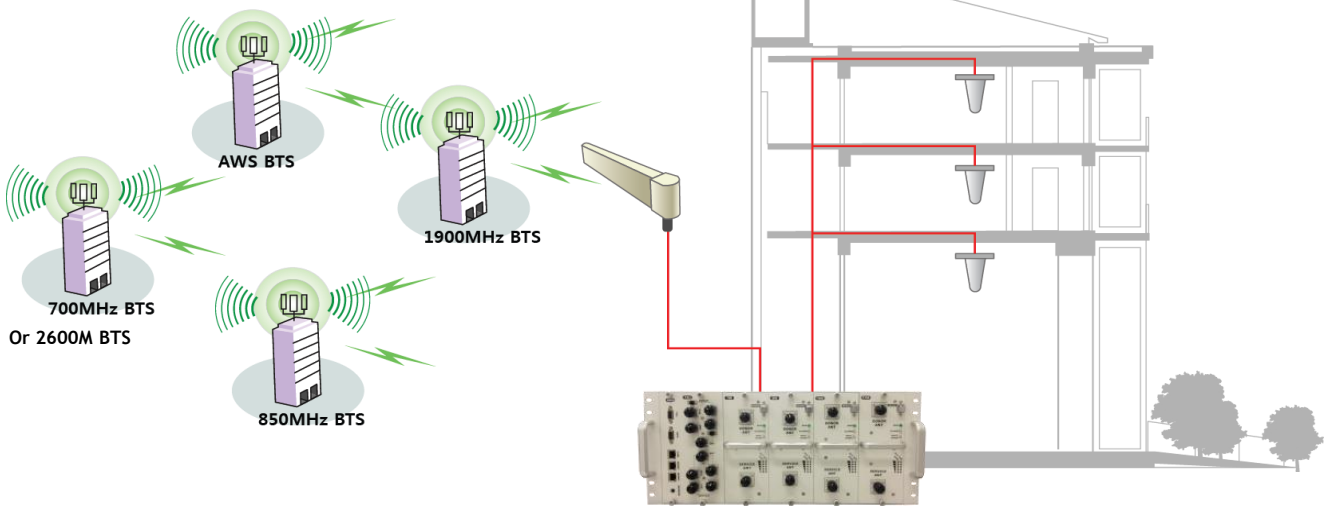
(CDMA/EVDO, WCDMA/HSPA, LTE, AWS)
 Quad Band Operation



SMTS-LCPA33

- Field adjustable band selection (Digital Filter)
- 700MHz up to 2 Bands Lower A through Upper C
 - Continuous, Non-Continuous Band Selection
 - Selectable Lower A,B, C, Upper C
- 800MHz up to 2 Bands A through B'
 - Continuous, Non-Continuous Band Selection
 - Selectable A, B, A', B', Lower B, Upper B, A+A', B+B', A+B+A'+B'
- 1900MHz up to 3 Bands A through C3
 - Three independent PCS channels Each channel supports 1.25 MHz to 20 MHz bandwidth by 1.25MHz Steps
- 2100MHz up to 2 Bands A through F
 - Continuous, Non-Continuous Bands Selection
 - Selectable 15M(A-F), 10M(A, B, CD, DE, F), 5M(A1, A2, B1, B2, C, D, E, F1, F2) Bandwidths
- 2600MHz Continuous Band Selection
 - Selectable AB, BC, CD, EF, FH, or HG Bands
- Internal Modem is installed for remote monitoring and control

In Building Quad Band RF Repeater



Item		Specification	Remark
Down Link Frequency	700MHz	728MHz - 746MHz, 746MHz - 757MHz	18MHz, 11MHz
	800MHz	869MHz - 894MHz	25MHz
	1900MHz	1930MHz - 1995MHz	65MHz
	2100MHz	2110MHz - 2155MHz	45MHz
	2600MHz	2496MHz - 2690MHz	194MHz
Up Link Frequency	700MHz	698MHz - 716MHz, 776MHz - 787MHz	18MHz, 11MHz
	800MHz	824MHz - 849MHz	25MHz
	1900MHz	1850MHz - 1915MHz	65MHz
	2100MHz	1710MHz - 1755MHz	45MHz
	2600MHz	2496MHz - 2690MHz	194MHz
Port	Donor ANT	Downlink and Uplink	8-Plex
	Server ANT	Downlink and Uplink	8-Plex
700M Select Bandwidth		Lower 6M (A, B, C), Upper 11M (C)	Two blocks Simultaneously
800M Select Bandwidth		25M(A+B+A'+B'), 11M(A), 10M(B), 1.5M(A'), 2.5M(B'), 5M(Lower B, Upper B)	Two blocks Simultaneously
1900M Channel Capacity		1.25MHz to 18.75MHz by 1.25MHz Steps	Three blocks Simultaneously
2100M Select Bandwidth		15M(A through F), 10M(A, B, CD, DE, F), 5M(A1, A2, B1, B2, C, D, E, F1, F2)	Two blocks Simultaneously
2600M Select Band Bandwidth		AB, BC, CD, EF, FH, HG by 33MHz BW	33MHz contiguous BW
Output Power	700/800/1900/2100/2600	+33dBm / 2W	
Gain	Range	60dB - 90dB	ALC: 30dB
	Adjust Step	±0.5dB	
	Adjust Accuracy	±1.0dB	
Propagation Delay		< 6.0us	
Single Tone		Power Change < +2/-4dB, EVM <8% @ ±1.25MHz edge	Input CW: -40dBm
Input Inter-modulation		AGC, ALC Output power Change < 10dB @ ±1.25M edge	Input CW: -40dBm
WiMAX Out of Band Emissions		Less than -24dBm @ 2495MHz and below -13dBm @ ±50KHz (100KHz BW), -13dBm @ ±1.5MHz (1MHz BW) -24dBm @ ±3.5MHz, ≤ ±6MHz (1MHz BW)	WiMAX Source
CDMA Spurious Emission		>45 dBc @±750kHz(Cellular), ±885kHz(PCs) >50 dBc @±1.98kHz, <-13dBm @Fc±2.25MHz (RBW: 1MHz)	
ACLR (LTE)		>45 dBc @±5MHz, >45 dBc @±10MHz	
ACLR (WCDMA/HSPA)		>45 dBc @±5MHz, >50 dBc @±10MHz	
Flatness		< ±1.5dB	
Return Loss / VSWR		> -14dB / < 1.5 : 1	
Noise Figure	700/800/1900/2100/2600	< 7dB @ Max gain, < 12dB @ Min gain	Downlink and Uplink
EVM	LTE	≤ 8%(AWGN 25dB)@D/L, ≤12.5%(AWGN 20dB)@U/L	
	HSPA/ WiMAX	≤ 5% (Against the source signal)	
Wave form quality (ρ)		> 0.97	For CDMA
Roll Offs	700MHz	≥ 45dBc @ 1MHz outside pass-band	
	800MHz	>50dBc @ 900 KHz outside pass-band	
	1900MHz	> 50dBc @ ±1.0MHz	
	2100MHz	>45 dBc @±1.1MHz outside pass-band	
	2600MHz	≥ 40dBc @ 1MHz ≤ Zero Gain @ 3.5MHz	
Characteristic Impedance		50Ω	
Item		Specification	Remark
RF Connector		N-Type Female	Donor & Server ANT
AC Power Cord		SJP-1 (3Pin)	Body Attached Type
AC Supply		110VAC - 125VAC, 60Hz 3.0A	±10%
Out Dimension		19(W) * 7.79(H) * 19.29(L)	inches
Net Weight		Single-Band(28.1), Dual-Band(43.3), Tri-Band(58.5), Quad-Band(73.7)	lbs
Material	Module	AL6063S-T5	
	Cabinet	AL5052P	
Operation Temperature		+14 °F ~ +122°F	Convection cooling
Humidity		5% - 95%	Non-condensing
Dust Resistance		TELCORDIA GR63-CORE	
Vibration Resistance		1G, 10-150Hz, 0.1 Octaves/min	
Internal Modem		(Optional)	
Environmental Spec.		NEMA1	
MTBF		100,000	hours