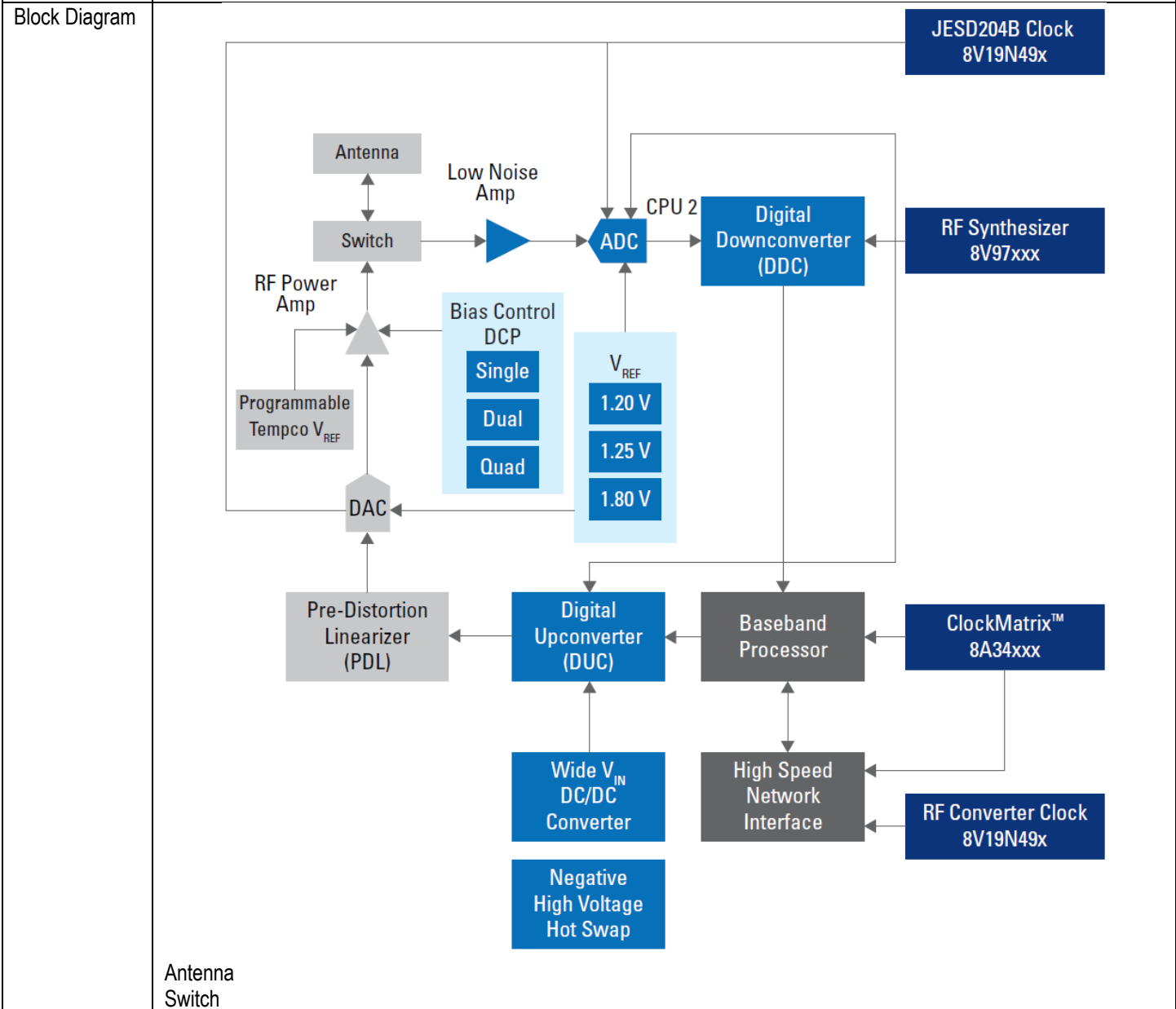


Title	Cellular Base Station
Overview	<p>The increased amount of data and video being transmitted via the cloud has placed huge bandwidth and power demands on the entire infrastructure market. The combination of a wide range of bias control DCPs, voltage references, digital converters, and highly integrated and industry-proven timing tree solutions addresses the needs of these modern systems.</p> <p>Target applications include base station radio cards, remote radio units, baseband units, satellites, and microwave communication links.</p> <p>Key Features:</p> <ul style="list-style-type: none"> • Lowest phase noise, which maximizes signal-to-noise ratio from converters and enables the best radio performance • Broad frequency range allows design portability to support existing 4G and future 5G standards as well as mmWave massive MIMO radios • Extremely low skew drift capability, making it ideal for beamforming applications • State-of-the-art solutions for 5G, with up to 18GHz LO output frequency with leading phase noise, low phase skew drift for AAS/beamforming, and cTE < 5ns for network equipment



RF Power Amp
 Programmable Tempco VREF
 Low Noise Amp
 Bias Control DCP
 Single
 Dual
 Quad
 Digital Down Converter (DDC)
 RF Synthesizer
 Pre-Distortion Linearizer (PDL)
 Digital Upconverter (DUC)
 Baseband Processor
 Wide Voltage DC/DC Converter
 Negative High Voltage Hot Swap
 High Speed Network Interface
 RF Converter Clock

Recommended Products

Product	Description
Digital Downconverter	
HSP50216	Four-Channel Programmable Digital Downconverter
Digital Upconverter	
ISL5217	Quad Programmable Upconverter
Voltage Reference	
ISL60002BIH31x Series	Precision Low Power FGA Voltage References
DC/DC Converter	
ISL9305	3MHz Dual Step-Down Converters and Dual Low-Input LDOs with I2C Compatible Interface
ISL9305H	3MHz Dual 1.5A Step-Down Converters and Dual Low-Input LDOs with I2C Compatible Interface
ISL9307	3MHz Dual 1500mA Step-Down Converters and Dual Low-Input LDOs
Negative High Voltage Hot Swap	
ISL6150	Negative Voltage Hot Plug Controller
Analog to Digital Converter	
ISLA112P50	12-Bit, 500MSPS A/D Converter
Clock Generator	
8A34 Family	ClockMatrix™ multichannel digital PLL

RF Synthesizer	
8V97xxx Series	RF Synthesizers & PLLs
RF Converter Clock	
8V19N49x Series	RF converter clocks & generators

Meta Description Explore solutions for cellular base station applications. Renesas offers cost effective, high performance products to power infrastructure design.

Keywords cell base station, DCPs, voltage references, digital converters, infrastructure