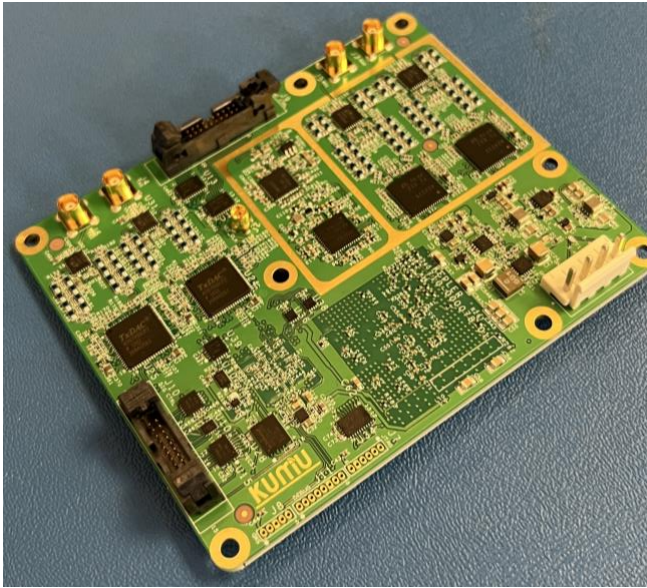


K7 Digital Cancellation Module



The K7 Digital Cancellation Module suppresses interference a transmitter presents to a co-located receiver using digital self-interference cancellation. In particular, it can be used as a component within 5G repeaters to achieve

higher gain, better stability and smaller form factor.

- Digital Self-Interference Cancellation up to 40dB
- Supports for wide range of frequency bands (700MHz – 6GHz) with SKU variants
- Up to 200MHz instantaneous bandwidth
- Up to 350ns delay spread support
- Latency < 500ns
- > 50dB Dynamic Range
- Support for 2Tx 2Rx MIMO or SISO radios
- Supports TDD and FDD radios
- IQ Match > 40dB
- Field firmware update capable
- Built-in TDD sync function
- Integrated Digital AGC

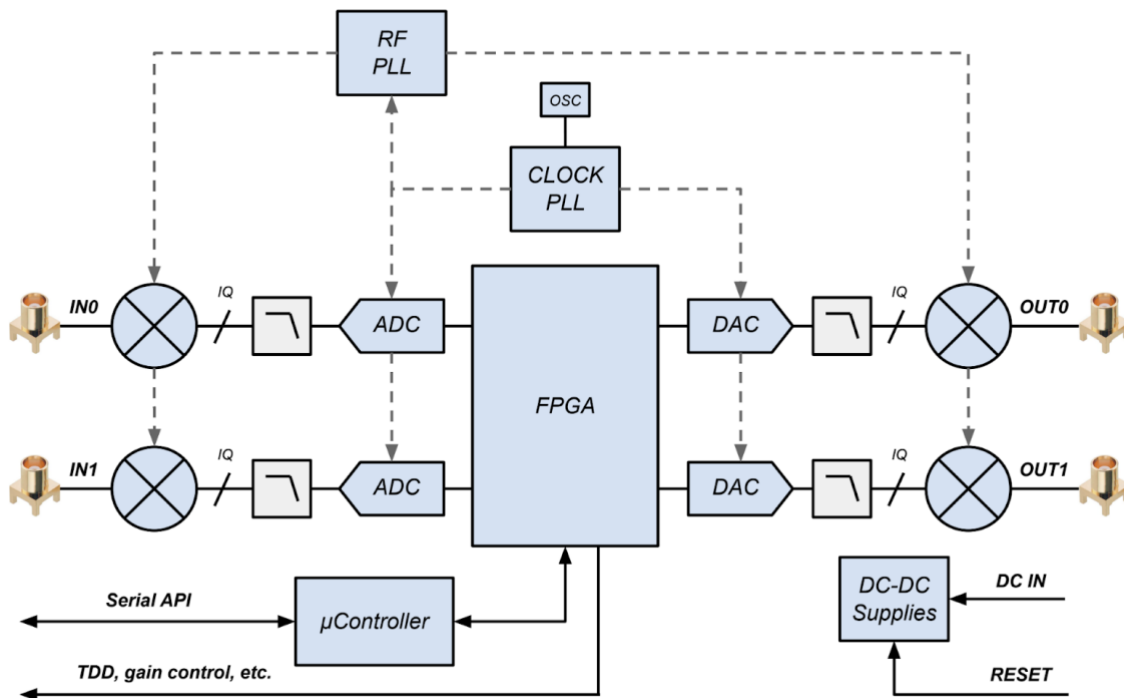


Figure 1: K7 Canceller Block Diagram

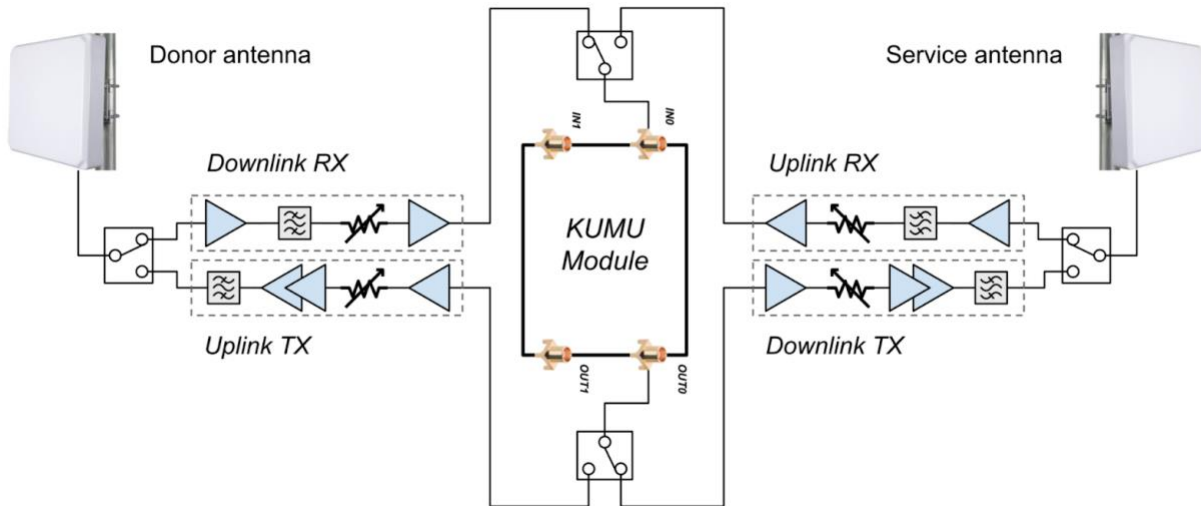


Figure 2: Repeater System (SISO case) using K7 Module

Electrical / Mechanical / Environmental

Parameter	Min	Typ	Max	Units
Dimensions		4" x 3.25" x 0.6"		in
Power Consumption		16		W
Input Voltage		5.4		V
Temperature Range	-40		85	C

Interfaces

Interface	Physical Connector	Purpose
IN0	MCX	Receive [0]
IN1	MCX	Receive [1]
OUT0	MCX	Transmit [0]
OUT1	MCX	Transmit [1]
GPIO[17:0]	20-pin header	FPGA Control GPIO's
UART[3:0]	16-pin header	UART for API and updates
TDD_SYNC[1:0]		Connect to external TDD Sync
RESET		Module hardware reset
Power	-	Power and Ground

SKU Variants

SKU	Operating Frequency Range	Comments
KU-K7-CM-V1	700 MHz – 1 GHz	
KU-K7-CM-V2	2.4GHz – 2.7GHz	
KU-K7-CM-V3	3.3GHz – 4.0GHz	

In addition to the standard variants, the module features many build options to fit any environment. Contact us for custom and standard quotes.

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