rfid as a feature

skyetek

SkyePlus MXU

860-960MHz UHF Multiplexer

APPLICATIONS:

- Retail Item-Level Management
- Manufacturing Lines
- Other Multiple Read-Point Applications

FEATURES:

- Low Insertion Loss
- Configurable as 4 Way or 8 Way
- Added Flexibility
- Excellent Signal Integrity
- Fast Switching Speed

BENEFITS:

- Robust Signal Processing
- Straightforward Customization
- 360° Spatial Diversity
- Minimize Reader Deployment Costs

Product Overview

The SkyePlus™ MXU expands a UHF reader's capability by adding support for up to 8 antennas. Digital control of the MXU is accomplished by either the host processor or reader module allowing any of the 8 antennas to be explicitly addressed using 3 GPIO pins. Additional multiplexers can be added to increase the number of antennas a module can support beyond 8 presenting a scalable solution.

- Low Insertion Loss: <1.4 dB
- Isolation: 30 dB
- Control Voltage: CMOS or TTL Levels

About SkyePlus MXU

The MXU can be equipped with 4 or 8 antenna ports depending on the application requirements. Infrastructure costs are reduced by using the MXU to minimize the number of readers required to support multiple read-points.

Electrical Specifications

Parameter	Frequency	Min	Typ	Max	Units
Insertion Loss	860-960 MHz		1	1.4	dB
Isolation	860-960 MHz	28	30		dB
Return Loss	860-960 MHz		22		dB

Applications

The SkyePlus MXU, used in conjunction with a SkyeTek UHF reader, eases integration efforts for those devices requiring multiple read-points by eliminating the need for multiple modules in such applications as:

- Retail Item-Level Management
- Manufacturing Lines
- Other Multiple Read-Point Applications

The MXU compliments SkyeTek UHF Tagnostic® reader technology which is offered in a variety of form factors making it easy to embed in any device.

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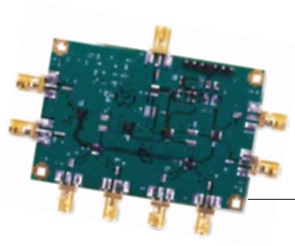


SkyPlus MXU

SkyePlus MXU Specifications

Physical Characteristics

Dimensions (LxWxH)	95.5x70.4x11.3 mm (Including 8 SMAs)	RF Connections: - 4x Output - 8x Output	50 ohm SMA (input) 50 ohm SMA 50 ohm SMA
Weight	TBD		

Absolute Maximum Ratings

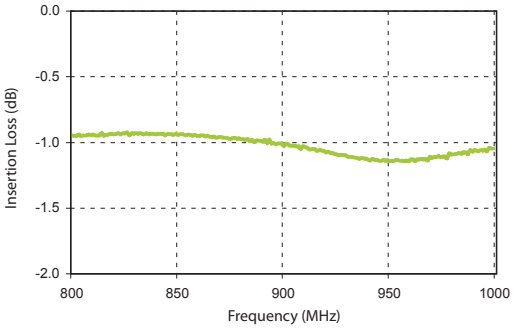
Max Input Power V_{ctl} = 0/+5V	860 - 960 MHz	39 dBm
Control Voltage Range (A&B)		-0.2 to +5.5 Vdc
Hot Switching Power Level V_{ctl} = 0/+5V		39 dBm
Channel Temperature		150° C
Continuous Pdiss (T = +85° C) (derate 6 mW/°° C above 85° C)		0.38W
Max Allowed switching Capacity		2W
Thermal Resistance		173°C/W
Storage Temperature		-65 to 150° C
Operating Temperature		-40 to +85° C

Electrical Characteristics

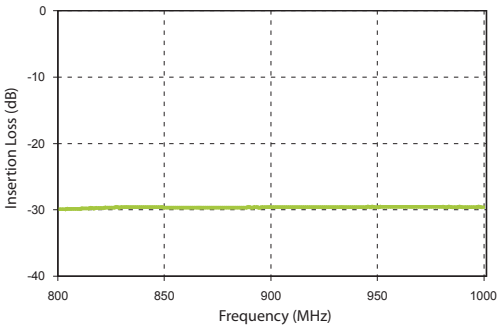
Power Supply	3.2 – 5.5V
Power Consumption	200 µA
Operating Frequency	860 - 960 MHz
Digital Inputs	3 inputs 0/3.3V, 0/5V

State	Bias Condition
Low	0 to + 0.2 Vdc
High	+3 Vdc +5Vdc

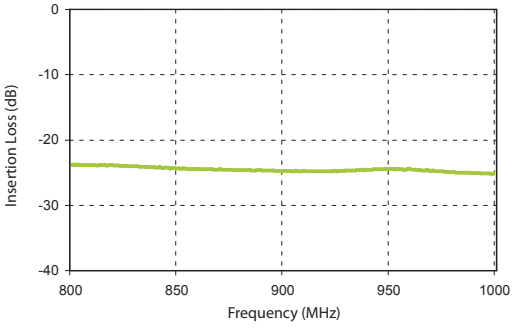
Insertion Loss



Isolation



Return Loss



Other Offerings from SkyeTek

SkyeTek provides a variety of reader technology at both 13.56 MHz (HF) and ~900 MHz (UHF). The M1-Mini, also part of the SkyeModule HF line, offers an even smaller design with comparable features. ReaderDNA is a comprehensive reference design available for component level integration of RFID reader technology, including complete design files, BOM, and test fixtures. ReaderWare, an open-architected software suite residing on all SkyeTek's modules and available with ReaderDNA, provides intelligence to the RFID reader hardware. The SkyeModule M8 is a low power, compact, UHF reader compatible with EPC and ISO transponders. All SkyeModules are controlled via the SkyeTek Protocol, a powerful but simple communication protocol that grants the user access to all features of an RFID transponder. Further, they have been designed with flexible and modular embedded software that allows one to select only the desired features.

About Skyetek:

SkyeTek, Inc., maker of ReaderWare™, is the leading supplier of RFID reader software and reference designs that enable the pervasive adoption of RFID technology. SkyeTek's Tagnostic™ reader technology works with most industry standard tags and smart labels, its low power requirements and a small form factor make it the optimal choice for embedding into new or existing products. SkyeTek's RFID reader technology is available in several formats including reader modules, hardware reference designs, and the ReaderWare™ software suite. SkyeTek markets to OEM customers in targeted vertical markets with several high-volume licensing options available. For more information about SkyeTek, visit **www.skyetek.com** or call **720-565-0441**.

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