



## Small Integrated Receiver Unit

### SIRU1111

0.05 - 18GHz

The Emcore Small Integrated Receiver Unit (SIRU1111) is a high-performance optical receiver with guaranteed performance over the 50 MHz to 18 GHz frequency band. The SIRU1111 is a fully integrated unit that contains both the high frequency photodiode and the control electronics. Only DC input voltages and the optical input signal are required for operation.

The unit can be used to construct transparent optical links for antenna remoting, microwave delay lines and other applications where it is necessary to transport RF and microwave signals over long distances without signal degradation.

The SIRU1111 is an ideal receiver to use with Emcore's high-performance externally modulated fiber optic transmitters.

#### Applications

- Microwave antenna signal distribution
- Broadband delay-line and signal processing systems
- Frequency distribution systems
- Radar System Calibration
- Phased array antenna systems, interferometric antenna arrays

#### Features

- Integrates a high frequency photodiode and bias circuitry into a connectorized package
- 0.05 MHz to >18 GHz usable bandwidth
- Ruggedized for operation in military or other harsh environments

#### Specifications

##### Electrical

Frequency Range	0.05 MHz to 18 GHz
Electrical Power Requirements	+15 V @ 60 mA max
Photocurrent monitor output	1 V/mA
RF Connector	K (female)
RF Output Impedance	50Ω

##### Optical

Wavelength	1300 - 1600 nm
Connectors	Diamond AVIM, angle-polished
Optical Input Power	+6 dBm maximum
Responsivity at DC	>0.7 A/W

##### Physical

Configuration	Environmentally-sealed
Dimensions	0.61" H x 3.25" W x 2.25" D
Operating/ Storage Temperature	-40 °C to +70 °C

**For more information on this and other products:**

Contact Sales at Emcore 626-293-3400, or visit [www.emcore.com](http://www.emcore.com).

## Ordering Information

SIRU-1111-AV-1

## Package Outline Drawing



Information contained herein is deemed to be reliable and accurate as of issue date. EMCORE reserves the right to change the design or specifications of the product at any time without notice. Ortel, the Ortel logo, EMCORE, and the EMCORE logo are trademarks of EMCORE Corporation.

### EMCORE

2015 West Chestnut Street  
 Alhambra, California 91803-1542  
 Tel: 626-293-3400  
 Fax: 626-293-3428  
[www.emcore.com](http://www.emcore.com)

**For more information on this and other products:**

Contact Sales at Emcore 626-293-3400 or visit [www.emcore.com](http://www.emcore.com)



© Copyright 2007, Emcore Corporation