

## RF over Fiber Integrated Optical Transmission System

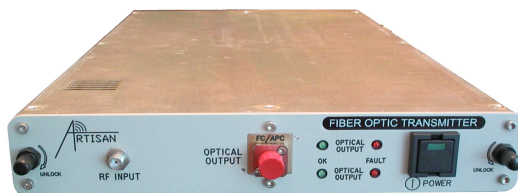
The RF over Fiber Integrated Optical Transmission System product line is a series of high performance optical transmission systems that are used to distribute RF and microwave signals up to 18 GHz. These systems are available with noise figure as low as 4 dB and high dynamic range up to 100 dB-Hz<sup>(2/3)</sup>. The system can be configured in 19-inch rack mount housings or in battery powered weatherproof case for field. Options include military grade optical and RF connections. Custom designs available!

### Potential applications include:

- DISTRIBUTED ANTENNA SYSTEMS (DAS)
- DISTRIBUTION OF GPS SIGNALS (ART-LN)
- MILITARY SHIPBOARD COMMUNICATION SYSTEMS
- ANTENNA REMOTING
- SATELLITE BASE STATIONS
- RADIO ASTRONOMY

### Benefits include:

- PLUG AND PLAY DESIGN REDUCES COST, SPACE, AND SET UP TIME
- TRANSMITS MODULATION FREQUENCIES THROUGH UP TO 18 GHZ
- BATTERY POWERED FOR QUICK SET UP IN THE FIELD
- AVAILABLE WITH MILITARY SHIPBOARD GRADE FIBER OPTIC CABLES AND CONNECTORS TO ENABLE THE OPTICAL SYSTEM TO MEET MIL-C-83522 SHOCK REQUIREMENTS



Front view: Optical transmitter



Front view: Optical receiver



## Electrical and Optical Specifications

Model	ART-01	ART-03	ART-04	ART-10	ART-18	ART-LN
Low frequency (GHz)	1	0.01	0.01	0.1	1	1
High frequency (GHz)	2	3.0	4.5	10	18	3
Noise figure (dB)*' **	10	10	10	10	20	4
Gain (dB)***	0	15	15	15	15	0
VSWR	2:1	2:1	2:1	2:1	2:1	2:1
Spurious free dynamic range dB-Hz <sup>2/3</sup>	100	100	100	100	100	80
Input 1 dB comp. point (dBm)	-10	-15	-15	-15	-15	-60
Impedance	50	50	50	50	50	50
Optical power (dBm)***	5	5	5	5	5	5
Optical wavelength (nm) <sup>1</sup>	1550	1550	1550	1550	1550	1550

\* Measured at 50 MHz, \*\* measured at 18 GHz, \*\*\*typical, <sup>1</sup> nominal

Optical connector types FC/PC, FC/APC SC/PC or SC/APC, MIL-C-83522

RF connector types SMA and N

Power Requirements: 120 VAC, 60 Hz

Parameters subject to change

To order call 267-228-3888 or [info@artisanlabs.com](mailto:info@artisanlabs.com)

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