

# Fiber Optic Transceiver

## ◆ Fiber Optic Transceiver



### Feature

- High Isolation W.D.M
- Low Noise Floor&Low Back Reflection
- High Sensitivity & High Dynamic Range
- Laser Diode, Photo Diode Alarm Circuit
- RF Diversity

### Application

- Wireless Communication System
- Fiber Optic Repeater  
(CDMA, GSM, PCS.etc...)
- Analog CATV & CCTV
- Cable Booster (Subway, Tunnel)



## *Optic 2 Wave Transceiver*

### Feature

- CDMA, GSM, IMT-2000 band operation
- Low Noise & Low back reflection
- High sensitivity & High dynamic range
- Single 12V DC power operation
- 1310nm wavelength (Slave), 1550nm wavelength (Master)
- Wide temperature operation (-20°C ~ +60°C)
- Optional feature (WDM, FSK Modem)

### Application

- Optical Repeater systems
- Remote Antenna systems
- Cellular / PCS / IMT2000 / CATV



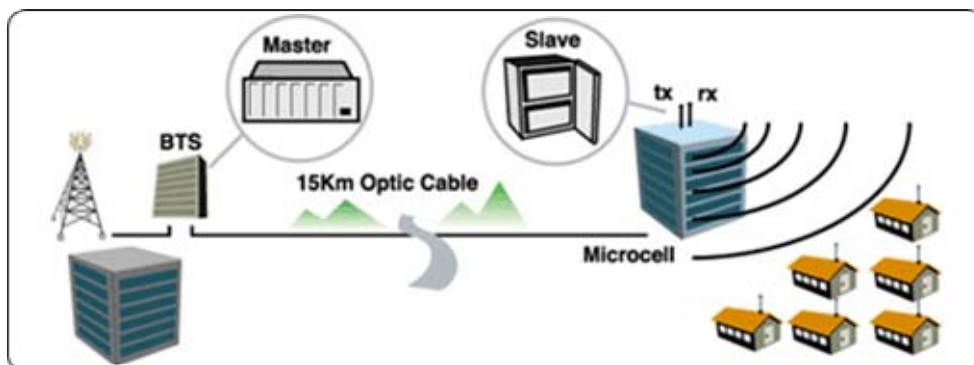
### Specification

Parameter		Condition		
Transceiver Characteristics (T=25°C)		Min	Typ.	Max
Optical output power		2mW	3mW	4 mW
RF Gain		-1.5 dB	0 dB	+ 1.5 dB
Bandwidth		-	Customize	-
Flatness of frequency		-	± 0.5 dB	± 1 dB
Wavelength	Master	1300nm	1310nm	1320nm
	Slave	1540nm	1550nm	1560nm
Optical Return Loss		-54dB	-	-
Output Noise Floor		-	-135dBm/Hz	-
RF port VSWR		-	-	1.5:1
Third order intercept (IP3)		-	28 dBm	-
Supply		-	12V	-
Current Consumption	Master	-	350 mA at 12V	400mA at 12V
	Slave	-	350 mA at 12V	400mA at 12V
Fiber Connector/ RF Connector		FC / APC, SMA Female		
<b>Absolute Maximum Rating</b>		<b>Rating</b>	<b>Absolute Maximum Rating</b>	<b>Rating</b>
Optical Input Power		4mW	Operating Temperature	-20 °C ~ +60 °C
RF Input Power		5 dBm	Storage Temperature	-30 °C ~ +80 °C
DC Supply voltage		+14V	-	-

### PIN CONFIGURATION (9 PIN D-SUB CONNECTOR)

PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION
1	N/C	2	GND	3	12V	4	N/C	5	N/C
6	N/C	7	LD Alarm	8	N/C	9	PD Alarm	-	-

### 2 Wave system application



## *Optic 3 Wave Transceiver*

### Feature

- CDMA, GSM, IMT-2000 band operation
- Low Noise & Low back reflection
- High sensitivity & High dynamic range
- Single 12V DC power operation
- Wide temperature operation (-20°C ~ +60°C)
- Optional feature (WDM, FSK Modem)

### Application

- Optical Repeater systems
- Remote Antenna systems
- Cellular / PCS / IMT2000 / CATV



### Specification

Parameter		Condition		
Transceiver Characteristics (T=25°C)		Min	Typ.	Max
Optical output power		2mW	3mW	4 mW
RF Gain		-1.5 dB	0 dB	+ 1.5 dB
Bandwidth		-	Customize	-
Flatness of frequency		-	±0.5 dB	±0.75dB
Wavelength	Master	1300nm	1310nm	1320nm
	Slave (or RV1)	1540nm	1550nm	1560nm
	Slave (or RV2)	1500nm	1510nm	1520nm
Optical Return Loss		-54dB	-	-
Output Noise Floor		-130dBm/Hz	-132dBm/Hz	-
RF port VSWR		-	-	1.5:1
Third order intercept (IP3)		25 dBm	27 dBm	-
Supply		-	12V	-
Current Consumption	Master	-	350 mA at 12V	400mA at 12V
	Slave	-	350 mA at 12V	400mA at 12V
Fiber Connector/ RF Connector		FC / APC, SMA Female		
<b>Absolute Maximum Rating</b>		<b>Rating</b>	<b>Absolute Maximum Rating</b>	<b>Rating</b>
Optical Input Power		4mW	Operating Temperature	-20°C ~ +60°C
RF Input Power		5 dBm	Storage Temperature	-30°C ~ +80°C
DC Supply voltage		+14V	-	-

#### PIN CONFIGURATION (Master)

PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION
1	N/C	2	GND	3	12V	4	N/C	5	N/C <sup>1</sup> , PD1 Alarm <sup>2</sup>
6	N/C	7	LD Alarm	8	N/C	9	PD Alarm <sup>1</sup> , PD2 Alarm <sup>2</sup>	-	-

#### PIN CONFIGURATION (Slave)

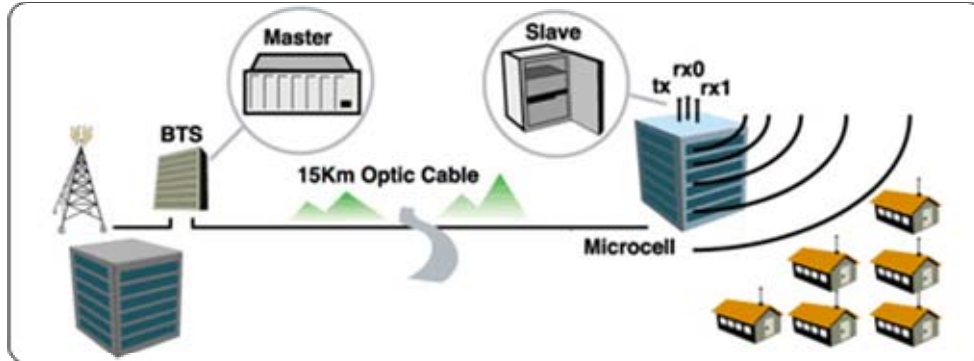
PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION
1	N/C	2	GND	3	12V	4	N/C	5	N/C, LD1 Alarm
6	N/C	7	LD Alarm <sup>1</sup> , LD2 Alarm <sup>2</sup>	8	N/C	9	PD Alarm	-	-

<sup>1</sup> : Add-Drop system application

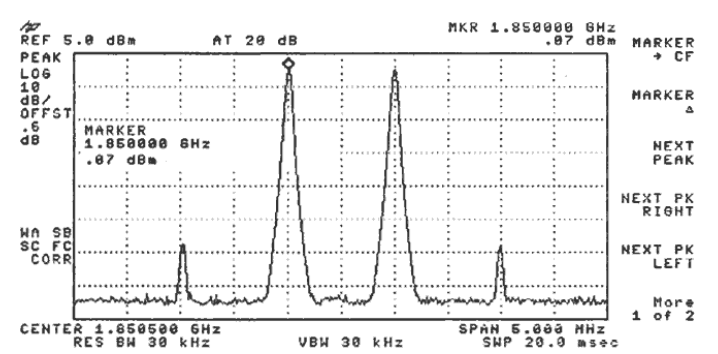
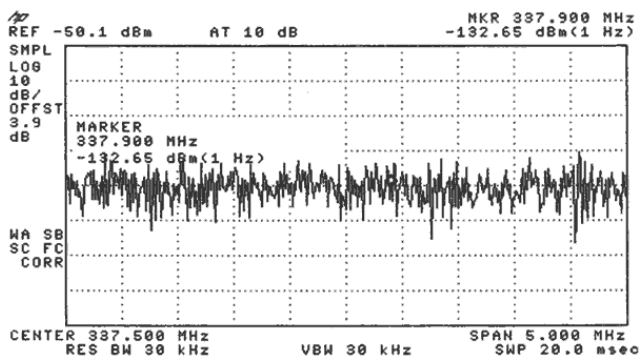
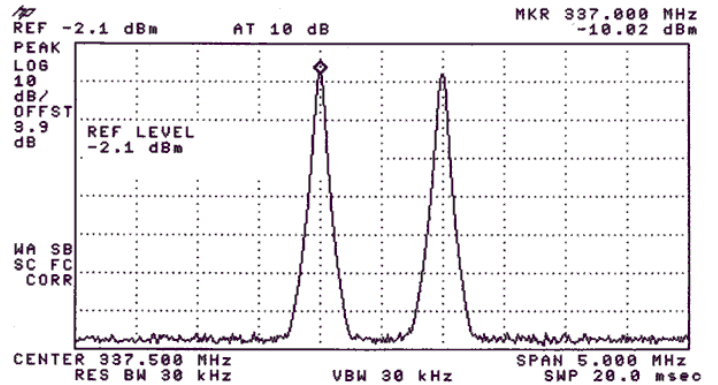
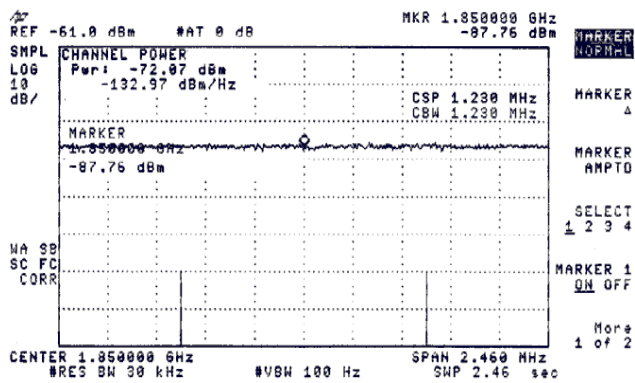
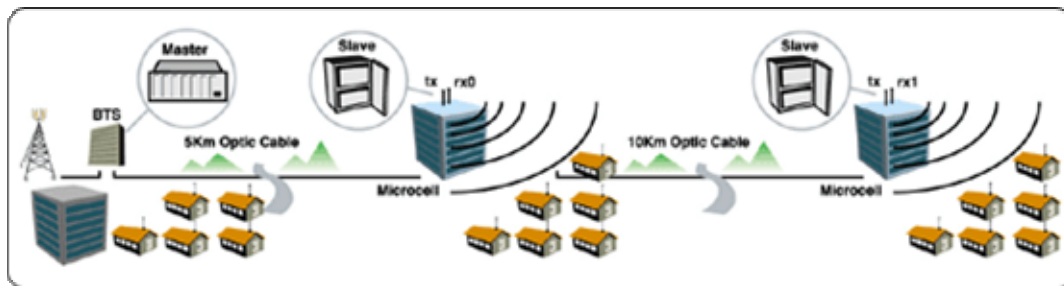
<sup>2</sup> : Diversity system application

# Optic 3 Wave Transceiver

3 Wave system application  
- 3W Diversity system



- 3W Add-Drop system



# Optic 4 Wave Transceiver

## Feature

- CDMA, GSM, IMT-2000 band operation
- Low Noise & Low back reflection
- High sensitivity & High dynamic range
- Single 12V DC power operation
- 1310nm wavelength (Master).
- 1510, 1530, 1550nm wavelength (Slave1, 2, 3)
- Wide temperature operation (-20°C ~ +60°C)
- Optional feature (WDM, FSK Modem)

## Application

- Optical Repeater systems
- Remote Antenna systems
- Cellular / PCS / IMT2000 / CATV



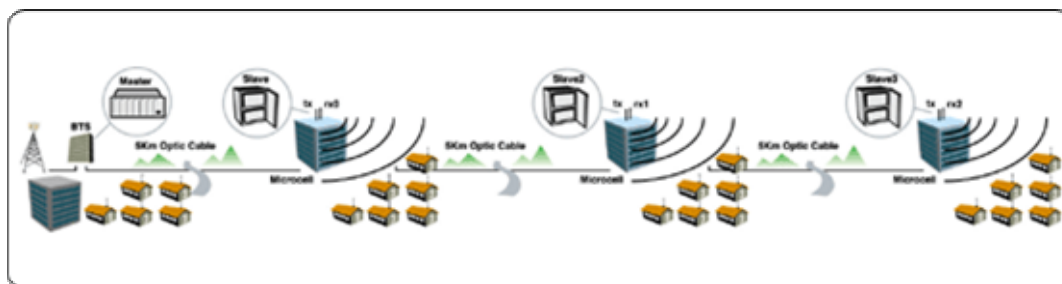
## Specification

Parameter		Condition		
Transceiver Characteristics (T=25°C)		Min	Typ.	Max
Optical output power		1mW	2mW	3 mW
RF Gain		-1.5 dB	0 dB	+ 1.5 dB
Bandwidth		-	Customize	
Flatness of frequency		-	±0.5 dB	± 1 dB
Wavelength	Master	1300nm	1310nm	1320nm
	Slave1	1527nm	1530nm	1533nm
	Slave2	1507nm	1510nm	1513nm
	Slave3	1547nm	1550nm	1553nm
Optical Return Loss		-48dB	-	-
Output Noise Floor (not include Coupler)		-130dBm/Hz	-135dBm/Hz	-
RF port VSWR		-	-	1.5:1
Third order intercept (IP3)		25 dBm	27 dBm	-
Supply		11V	12V	13V
Current Consumption	Master	-	350 mA at 12V	400mA at 12V
	Slave	-	350 mA at 12V	400mA at 12V
Fiber Connector/ RF Connector		FC / APC, SMA Female		
<b>Absolute Maximum Rating</b>		<b>Rating</b>	<b>Absolute Maximum Rating</b>	<b>Rating</b>
Optical Input Power		4mW	Operating Temperature	-20°C ~ +60°C
RF Input Power		5 dBm	Storage Temperature	-30°C ~ +80°C
DC Supply voltage		+14V	-	-

### PIN CONFIGURATION (9 PIN D-SUB CONNECTOR)

PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION
1	N/C	2	GND	3	12V	4	N/C	5	N/C
6	N/C	7	LD Alarm	8	N/C	9	PD Alarm	-	-

## 4 Wave system application



# Optic 5 Wave Transceiver

## Feature

- CDMA, GSM, IMT-2000 band operation
- Low Noise & Low back reflection
- High sensitivity & High dynamic range
- Single 12V DC power operation
- 1310nm wavelength (Master).
- 1510, 1530, 1550, 1570nm wavelength (Slave1, 2)
- Wide temperature operation (-20°C ~ +60°C)
- Optional feature (WDM, FSK Modem)

## Application

- Optical Repeater systems
- Remote Antenna systems
- Cellular / PCS / IMT2000 / CATV



## Specification

Parameter		Condition		
Transceiver Characteristics (T=25°C)		Min	Typ.	Max
Optical output power		2mW	3mW	4 mW
RF Gain		-1.5 dB	0 dB	+ 1.5 dB
Bandwidth		-	Customize	-
Flatness of frequency		-	±0.5 dB	±0.75dB
Wavelength	Master	1300nm	1310nm	1320nm
	Slave1 (or RV1)	1540nm	1550nm	1560nm
	Slave2 (or RV2)	1500nm	1510nm	1520nm
Optical Return Loss		-54dB	-	-
Output Noise Floor (not include Coupler)		-130dBm/Hz	-132dBm/Hz	-
RF port VSWR		-	-	1.5:1
Third order intercept (IP3)		25 dBm	27 dBm	-
Supply		-	12V	-
Current Consumption	Master	-	350 mA at 12V	400mA at 12V
	Slave	-	350 mA at 12V	400mA at 12V
Fiber Connector/ RF Connector		FC / APC, SMA Female		
<b>Absolute Maximum Rating</b>		<b>Rating</b>	<b>Absolute Maximum Rating</b>	<b>Rating</b>
Optical Input Power		4mW	Operating Temperature	-20°C ~ +60°C
RF Input Power		5 dBm	Storage Temperature	-30°C ~ +80°C
DC Supply voltage		+14V	-	-

PIN CONFIGURATION (Master)						PIN CONFIGURATION (Slave)					
PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION
1	N/C	4	N/C	7	LD Alarm	1	N/C	4	N/C	7	LD2 Alarm
2	GND	5	PD1 Alarm	8	PD3 Alarm	2	GND	5	LD1 Alarm	8	N/C
3	12V	6	PD2 Alarm	9	PD4 Alarm	3	12V	6	N/C	9	PD1 Alarm

## 5 Wave system application

