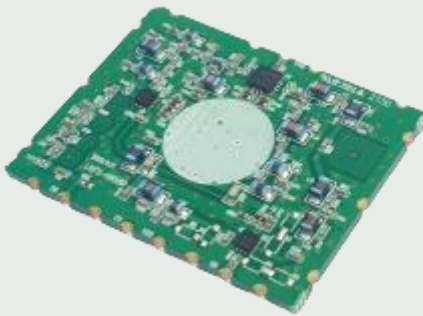


Diplexer Modules (LRFS Series)

# Switchable Diplexer



LRFS-0858D supports Docsis3.0 and Docsis3.1.

Low Mode and High Mode can be selected using the built-in switch.

In Low Mode, Up Stream 5~85 / Down Stream 108~1218MHz are supported.

In High mode, Up Stream 5~204 / Down Stream 258~1218MHz are supported.

In addition to the series in the table below, custom designs are also available.

And we can provide technical support for impedance matching if required.

### Features

- 75ohm SMD-Type
- Compact Size
- Low Insertion Loss
- High Rejection
- Easy Installation & Exchange
- Low Price
- Impedance Matching Support
- Custom Design Available

### Applications

- Digital Set Top Box
- Cable Modem
- ONU
- Residential Gateway
- Video And Audio Equipment

### Series

Model	Mode	Up Stream	Down Steam
LRFS-0858D	Low	5~85 MHz	108~1218MHz
	High	5~204 MHz	258~1218MHz
LRFS-8558D	Low	5~65 MHz	85~1218MHz
	High	5~204 MHz	258~1218MHz
LRFS-0816D	Low	5~85 MHz	108~1218MHz
	High	5~174 MHz	216~1218MHz
LRFS-4285U	Low	5~42 MHz	108~1218MHz
	High	5~85 MHz	



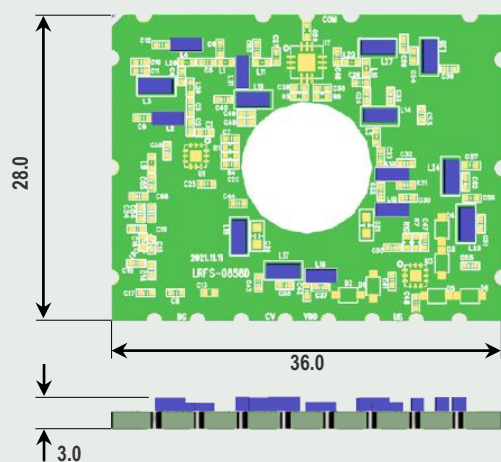
## Diplexer Modules (LRFS Series)

# LRFS-0858D

### Mechanical Dimension

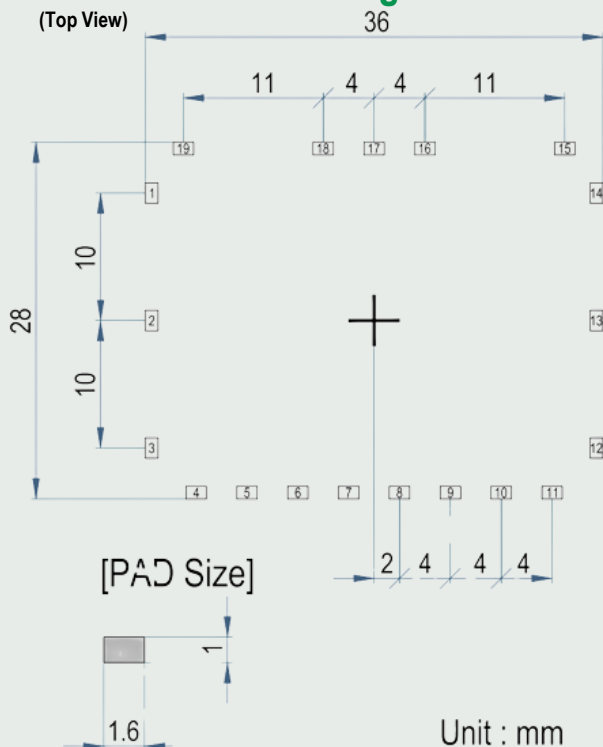
(The dimensions are in millimeters)

(WxLxH = 36 X 28 X 3)



### Land Pattern Drawing

(Top View)



### RF Characteristics

Mode	Stream	Parameter	Frequency	Value	Unit	
Low Mode	Up Stream	5 ~ 85 / 108 ~ 1218 MHz				
		Insertion loss	5~85	2.8 Max	dB	
		Return loss	5~85	14 Min	dB	
		Rejection	108 ~ 500 MHz	58 Min	dB	
			500 ~ 1675 MHz	45 Min	dB	
			1675 ~ 3000 MHz	30 Min	dB	
	Down Stream	Insertion loss	108~255 MHz	2.8 Max	dB	
			255 ~ 1002 MHz	2.5 Max	dB	
			1002 ~ 1218 MHz	4.0 Max	dB	
		Return loss	108 ~ 1218 MHz	14 Min	dB	
Rejection		5 ~ 85 MHz	48 Min	dB		
		1375 ~ 1675 MHz	30 Min	dB		
		1675 ~ 3000 MHz	25 Min	dB		
High Mode	Up Stream	5 ~ 204 / 258 ~ 1218 MHz				
		Insertion loss	5~204	2.8 Max	dB	
		Return loss	5~204	14 Min	dB	
		Rejection	204 ~ 500 MHz	58 Min	dB	
			500 ~ 1675 MHz	45 Min	dB	
			1675 ~ 3000 MHz	30 Min	dB	
	Down Stream	Insertion loss	258~500 MHz	2.8 Max	dB	
			500 ~ 1002 MHz	2.5 Max	dB	
			1002 ~ 1218 MHz	4.0 Max	dB	
		Return loss	258 ~ 1218 MHz	14 Min	dB	
Rejection		5 ~ 204 MHz	48 Min	dB		
		1375 ~ 1675 MHz	30 Min	dB		
		1675 ~ 3000 MHz	25 Min	dB		

\* Test Condition : LiComm JIG standard

### Pin Descriptions

Pin #	Description
17	COM
10	Up Stream
5	Down Stream
7	Control Voltage
8	VDD
Etc.	GND

### RF Switch Table

Port	Mode	Pass Band [MHz]
COM	Low	85 / 108
	High	204 / 258
Up Stream	Low	5 ~ 85
	High	5 ~ 204
Down Stream	Low	108 ~ 1218
	High	258 ~ 1218

### Operating Ranges

Parameter	MIN	Typ	MAX	Unit
VDD Supply voltage	2.3	3.3	5.5	V
Control voltage high	1.2	1.5	3.3	V
Control voltage low	0	0	0.5	V
Operating temperature range	-20	25	70	°C

### Ordering Information

<b>LRFS</b>	-	<b>08</b>	<b>58</b>	<b>D</b>
Type	Low Split Frequency	High Split Frequency	Stream Distinction	
S: Switchable F: Fixed	Last 2 digits of frequency	Last 2 digits of frequency	D : Down Stream (Bidirectional Switchable) U : Up Stream (Unidirectional Switchable)	

LiComm Co., Ltd.

Address

109, Baekja-ro, Idong-eup, Cheoin-gu, Yongin-Si,  
Gyeonggi-Do, 17126, Korea

Tel: +82-31-323-1926

Fax: +82-31-323-2447

E-mail: sales@licomm.com

Website : www.licomm.com