

# RFSMR500

## 高性能低损耗射频电缆

Ver A/0 发布日期

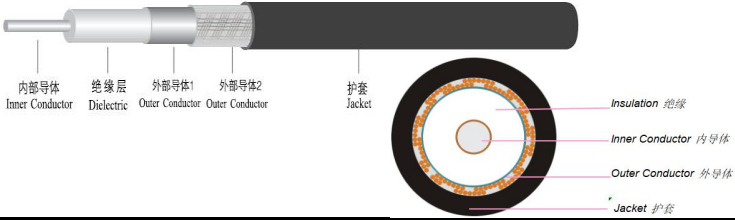
2015年3月



P/N:3076

### 产品特点

- 82%Vp FPE介质+自粘铝箔+镀锡铜丝编织
- 超低损耗，低成本，超长寿命
- 等同于 LMR500
- 可替换 CDF500  
CNT500



### 结构尺寸

	结构	尺寸 (mm)	公差	材料
1	中心导体	3.61	±0.01	铜包铝
2	电介质	9.40	±0.15	发泡PE
3	外导体	9.55	±0.005	自粘铝箔
4	外层屏蔽	10.29	±0.05	镀锡铜丝编织
5	外护套	12.70	±0.15	PE黑色或定制

### 机械与环境性能

弯曲半径，最小安装(mm)	31.8
弯曲半径，重复弯曲(mm)	127
最大拉伸强度(N)	1156
重量(g/m)	140
温度范围，安装与使用(°C)	-40~+85
电缆抗压(负载700N)(%)	< 1%

### 有毒有害物质含量

镉及其化合物 (Cd)	< 0.01%
铅及其化合物 (Pb)	< 0.1%
汞及其化合物 (Hg)	< 0.1%
六价铬及其化合物	< 0.1%
多溴联苯(PBB)	< 0.1%
多溴二苯醚(PBDE)	< 0.1%

### 电气性能

特性阻抗(ohm)	50 ± 2	绝缘介电强度(V DC)	3000
静电容(pF/m)	78	绝缘电阻(MΩ · km)	> 10,000
传输速率(%)	82	额定功率(KW)	22
内直流电阻(ohm/km)	< 2.7	屏蔽性能(dB)	> 90
外直流电阻(ohm/km)	< 4.2	编织密度(%)	90 ± 3
护套火花电压(V RMS)	8000	驻波比 30-2500 MHz	< 1.25

### 衰减值（典型值@25°C&VSWR=1.0）与传输功率值（典型值@40°C&一个标准大气压下）

频率 MHz	30	50	150	220	450	900	1500	1800	2000	2500	5800	8000
dB/100 m	1.80	2.30	4.00	4.90	7.10	10.30	13.60	15.00	15.90	18.00	29.10	35.20
平均功率 kW	4.400	3.393	1.931	1.583	1.088	0.752	0.569	0.515	0.485	0.428	0.264	0.220

衰减最大高出10%

Defined by: Luke

Prepared by: Eric

Approved by: K.F. Lu

Rev: A/0

深圳市睿凡讯连科技有限公司

网址: www.rfcoms.com

电话: +86 13480725660

Email: luke@rfcoms.com

本技术资料产权归属于深圳睿凡公司，未经允许，不得复制、摘抄或转交的其他第三方公司与机构。规格如有更改，恕不另行通知

# RFSMR500

Ultra Low Loss Coax Cable

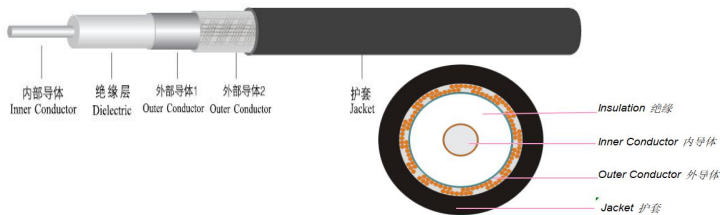
Ver A/0 Release Date Match, 2015



P/N:3076

## Features&Benefits

- 85%Vp FPE+Al Bonded Tape+TC shield
- Ultra-low loss, Less cost,Durable
- Equivalent to LMR500
- Replace to CDF500  
CNT500



## Construction Specification

	Description	Size (mm)	Tol.	Materials
1	Center conductor	3.61	±0.02	Copper Clad Aluminium
2	Dielectric	9.40	±0.15	Foam PE
3	Outer conductor	9.55	±0.05	Bonded AL/P-Foil
4	Outer shield	10.29	±0.05	Tinned Copper Shields
5	Jacket	12.70	±0.15	PE black or customize

## Mechanical&Environmental Specifications

Bend Radius:installation (mm)	31.8
Bend Radius:repeated (mm)	127
Max.Pulling Tension (N)	1156
Weight (g/m)	140
Temp, Operating&Installation (°C)	-40~+85
Crush resistance of cable (load of 700N)(%)	<1%

## RoHS Guideline

Cadmium content (Cd)	<0.01%
Lead content (Pb)	<0.1%
Mercury content (Hg)	<0.1%
Chromium (VI) content	<0.1%
Polybrominated Biphenyls (PBB)	<0.1%
Polybrominated Diphenyl Ether (PBDE)	<0.1%

## Electrical Specifications

Characteristic Impedance(ohm)	50±2	Dielectric Strength(V DC)	3000
Capacitance(pF/m)	78	Insulation resistance(MΩ·km)	>10,000
Velocity ratio(%)	82	Peak Power(KW)	22
DCR: Inner Conductor(ohm/km)	<2.7	Shielding Effectiveness(dB)	>90
DCR: Outer Conductor(ohm/km)	<4.2	Shields Coverage(%)	90±3
Jacket Sparker(V RMS)	8000	SWR 30-2500 MHz	<1.25

## Attenuation (Typical@25°C&VSWR=1.0) &Power (VSWR=1.0;40°C;Sea Level)

Frequency MHz	30	50	150	220	450	900	1500	1800	2000	2500	5800	8000
dB/100 m	1.80	2.30	4.00	4.90	7.10	10.30	13.60	15.00	15.90	18.00	29.10	35.20
Avg.Power kW	4.400	3.393	1.931	1.583	1.088	0.752	0.569	0.515	0.485	0.428	0.264	0.220

Maximum attenuation is 10% higher.

Defined by: Luke

Prepared by: Eric

Approved by: K.F. Lu

Rev: A/0

Shenzhen RFcoms Technology Co.,LTD

Website: www.rfcoms.com

Tel: +86 13480725660

Email: luke@rfcoms.com

The rights of technical information provided on this sheet belongs to RFcoms. Contents cannot be distributed to other third-party companies without permission.The specifications are subjected to change without prior notice