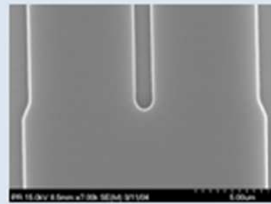
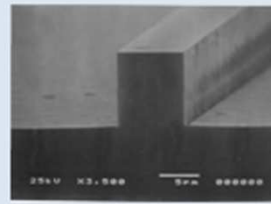


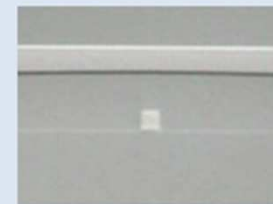
CORECROSS PLC Splitter Chip



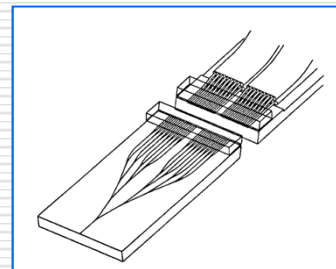
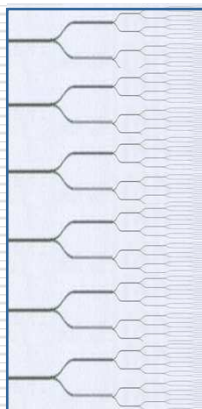
Cr-etched State



Core-etched State



Waveguide Cross Section



CORECROSS

Version 1.2

Features

CORECROSS



CoreCross PLC optical splitter chip is a silica glass(quartz) embedded with optical wave circuit. The circuit pattern is designed to branch a single input to multiple output channels.

The high performance silica waveguides provide low insertion, low polarization dependent loss(PDL) and excellent channel uniformity over a wide wavelength range from 1260nm to 1650nm.

Key Features :

- ◇ Single mode (up to 64output standard)
- ◇ Compact Design
- ◇ Low insertion loss and low PDL
- ◇ Wide operating wavelength : 1260nm – 1650nm
- ◇ Excellent channel-to-channel uniformity
- ◇ Polarization Maintaining
- ◇ High Reliability and Stability
- ◇ Large operating temperature range

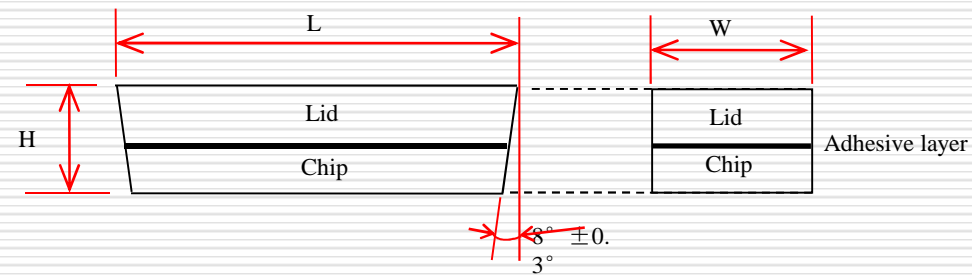
Applications :

- ◇ FTTX Systems
- ◇ Analog and Digital PON (Passive Optical Networks)
- ◇ CATV Networks
- ◇ LAN, WAN and Metro Networks
- ◇ Other applications in fiber optic systems

Chip Drawing & Operating Conditions

CORECROSS

1. Chip Drawing



2. Operating Conditions

Operating Wavelength	1260 ~ 1650 nm
Return Loss	≥ 55 dB
Directivity	≥ 55 dB
Operating Temperature	- 40 ~ 85 °C
Storage Temperature	- 40 ~ 85 °C
Operating Humidity	Max. 95 % RH
Storage Humidity	Max. 95 % RH

1XN PLC Splitter Chip Specifications

CORECROSS

PARAMETER	UNIT	1x4 (250 μ m)	1x8(250 μ m/127 μ m)	1x16(127 μ m)	1x32(127 μ m)	1X64(127 μ m)
Operating Wavelength	nm	1260~1650				
Grade		Premium Grade(P)				
Insertion Loss(Max.)	dB	6.70	9.80	13.00	16.20	19.80
Uniformity(Max)		0.50	0.60/0.70	0.70	1.00	1.20
PDL(Max)		0.12	0.15	0.15	0.18	0.18
Grade		Standard Grade(S)				
Insertion Loss(Max.)	dB	7.00	10.20/10.10	13.50	16.70	20.20
Uniformity(Max)		0.60	0.80	1.20	1.30	1.50
PDL(Max)		0.18	0.25	0.25	0.25	0.25
Return Loss*	dB	≥55				
Directivity	dB	≥55				
Substrate	μ m	Quartz				
End Face		0±0.3, 8±0.3 (Top or Bottom Short)				
Lid	°	Glass Full Lid				
Operating Temp. Range		-40 to +85				
Chip Size(LXWXH) W(±0.2), L(±0.3), H(±0.2) After dicing/polishing	mm	8.9X2.25X2.15	250 μ m(13.0X2.50X2.15) 127 μ m(12.0X2.25X2.15)	13.70X2.75X2.15	17.27X4.70X2.15	23.4X8.85X2.15

- ♣ * : Applied to 8° Tilt Polished ♣ Specifications are subject to change without notice.
- ♣ The above specifications are checked based on both 1310nm and 1550nm.

2XN PLC Splitter Chip Specifications(Tentative)

CORECROSS

PARAMETER	UNIT	2x4 (250 μ m)	2x8(127 μ m)	2x16(127 μ m)	2x32(127 μ m)
Operating Wavelength	nm	1260~1650			
Grade		Premium Grade(P)			
Insertion Loss(Max.)	dB	7.00	10.2	13.50	17.0
Uniformity(Max)		1.00	1.00	1.50	1.50
PDL(Max)		0.20	0.20	0.25	0.25
Grade		Standard Grade(S)			
Insertion Loss(Max.)	dB	7.20	10.50	14.0	17.5
Uniformity(Max)		1.20	1.20	1.80	1.80
PDL(Max)		0.25	0.25	0.30	0.30
Return Loss*	dB	≥55			
Directivity	dB	≥55			
Substrate	μ m	Quartz			
End Face		0±0.3, 8±0.3 (Top or Bottom Short)			
Lid	°	Glass Full Lid			
Operating Temp. Range		-40 to +85			
Chip Size(LXWXH) W(±0.2), L(±0.3)	mm	17.0X2.25X2.15	19.10X2.25X2.15	23.0X2.75X2.15	24.4X4.70X2.15

- ♣ * : Applied to 8° Tilt Polished ♣ Specifications are subject to change without notice.
- ♣ The above specifications are checked based on both 1310nm and 1550nm.

Ordering Information

CORECROSS

CPS

C=CoreCross
P=PLC
S=Splitter

Grade

P=Premium
S=Standard

Input & Output

104=1X4
108=1X8
116=1X16
.....
204=2X4
264=2X64

Output Pitch

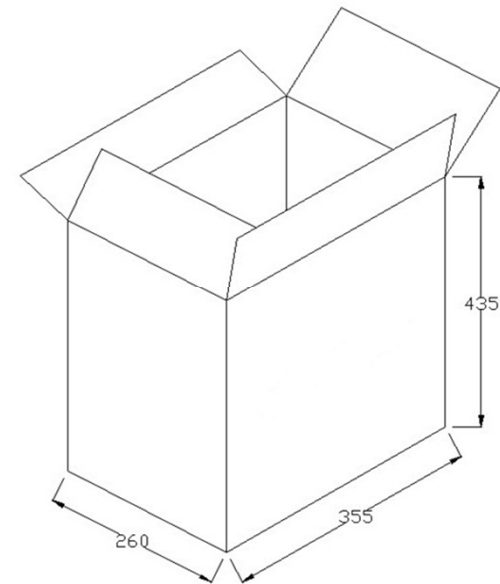
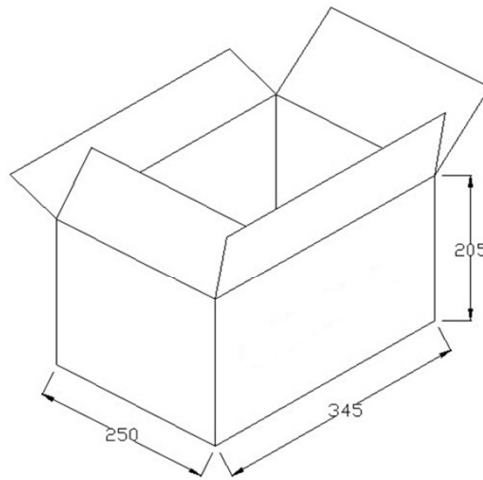
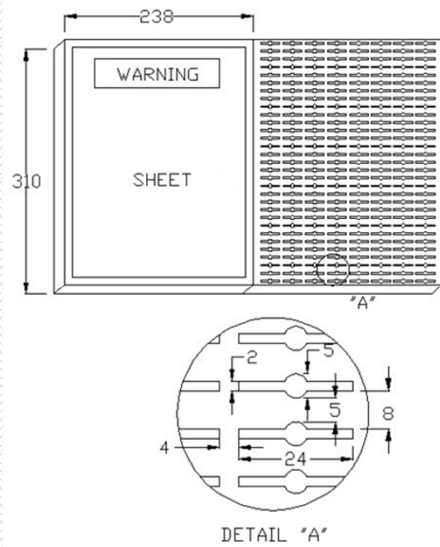
1=127 μm
2=250 μm

End-Face

N=None Polished
Z=0° Polished
T=8° Top Polished
B=8° Bottom Polished

Standard Packing Method

CORECROSS



Part	Plastic Case including PAD	BOX(Small)		BOX(Big)	
Size	310×238×23 (L×W×H) mm	345×250×205 (L×W×H) mm		355×260×435 (L×W×H) mm	
CH	CHIP Q,ty	CASE Q,ty	CHIP Q,ty	BOX Q,ty	CHIP Q,ty
1×4	200	5	1,000	2	2,000
1×8	200	5	1,000	2	2,000
1×16	200	5	1,000	2	2,000
1×32	200	5	1,000	2	2,000
1×64	100	5	500	2	1,000