	Product Series Code	GLECM	Brand	GOTREND
	File Version	GLECM-V1R4	Editor	Teddy
	Established Date	2009.08.20	Description	Common Mode Choke Coil
	Latest Edit Date	2014.08.25	Pages	Page : 2

Features & Application:

- * Common Mode Filter for high speed signal line
- * Fit for signal line circuit : HDMI / USB3.0 6.0GHz
- * To help you go pass the CE/FCC standard.
- * Mobile Device / Handheld Device / LowProfile Device

Part No Example:

GLECM 2012 B - 900 Q T
 1 2 3 4 5 6

1. GLECM : GOTRED Series Code
2. 2012 : Length 2.0 mm X Width 1.2 mm
3. B : Identification Code [B = USB3.0 6.0 GHz]
 D : Identification Code [D = HDMI 3.5 GHz]
 H : Identification Code [H = HDMI 6.0 GHz]
4. 900 : Impedance [Ohm] @ 100MHz = 90 Ohm
5. Q : Impedance Tolerance [60 ~ 100 Ohm]
6. T : Reel Tapping

Test Equipment :

- * Agilent E4287A - Impedance
- * Zentech 502BC - DC Resistance
- * Agilent 4339B - Insulation Resistance

Standard Atmospheric Conditions:

Ambient Temp:20+/-15°C

Relative Humidity:65+/-20%

If there may be any doubt on the result,

measurement shall be made within the following limits:

Ambient Temp:25+/-5°C

Relative Humidity:75+/-10%

Operating & Storage Condition:

OPERATING TEMP : -40~+85°C

STORAGE TEMP : -40~+85°C

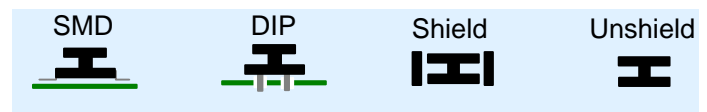
STORAGE LIFE TIME : 12 MONTH @25°C , RH 65%

Attention & Caution:

Please avoid following matters:

- * Splashing water or salt water
- * Toxic Gas (Hydrogen sulfide, Sulfurous acid, Chlorine, Ammonia)
- * Vibrations or shocks which exceed the specified condition
- * Dew condenses
- * Please be careful for the stress to this product by board flexure or something after the mounting.

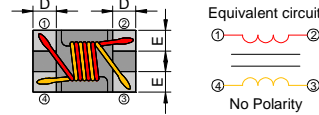
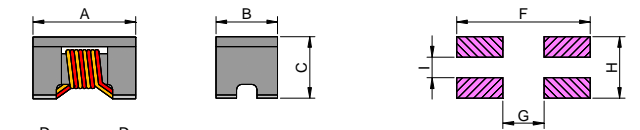
Product Structure



2005 RoHS Compliant - SGS Certified Result

鉛 Pb	鎘 Cd	汞 Hg	六價鉻 Cr+6	溴化聯苯 PBB	溴化聯苯 醌PBDE
<1000ppm	ND	ND	ND	ND	ND

DIMENSION : [mm]



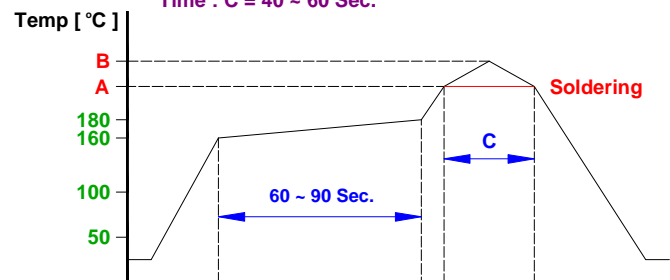
TYPE	A	B	C	D	E	F	G	H	I
1210	1.2+/-0.2	1.0+/-0.2	1.0 Max.	0.35 typ.	0.35 typ.	1.55 ref.	0.65 ref.	1.10 ref.	0.30 ref.
2012	2.0+/-0.2	1.2+/-0.2	1.2+/-0.2	0.50 typ.	0.45 typ.	2.60 ref.	0.80 ref.	1.30 ref.	0.40 ref.

Size Code & Package Quantity:

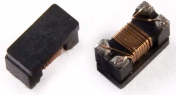
JIS CODE	EIA CODE	PCS / REEL	REEL / BOX
1210	0504	4,000	5
2012	0805	2,000	5

Recommend IR Reflow Curve :

Lead Free Solder : A = 217 °C B = 245 +/- 5 °C
 Time : C = 40 ~ 60 Sec.



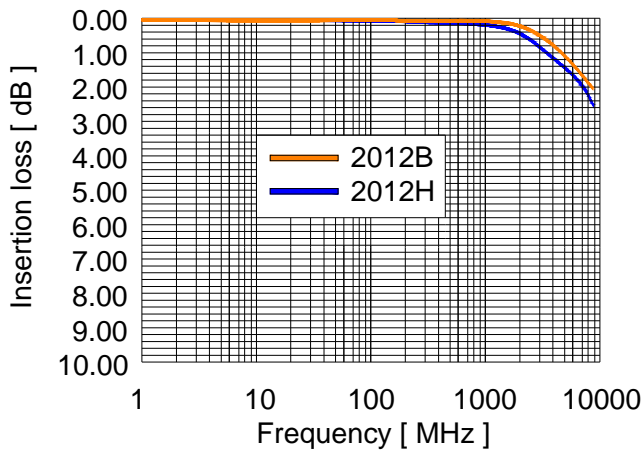
Notice : Iron Soldering , Solder < 30 Watt , Direct touch the terminal x 3 Sec. Max. @ 350 °C

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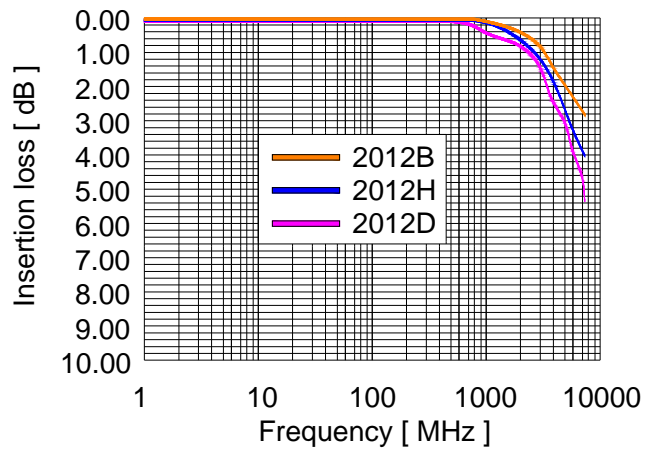
Electrical Spec. :

Part No.	Common Mode impedance(Ohm) @100MHz	DCR (Ohm) (max)	Rated Current (mA) (max)	Rated Voltage V(DC)	Cut-off Freq.(GHz) (typ.)	Insulation Res. (M Ohm) (min.)
GLECM1210H-300BT	30 +/- 30%	0.35	350	20	/	10
GLECM1210B-600QT	60 Typ.	0.4	300	20	10.0	10
GLECM1210H-900QT	90 Typ.	0.5	280	20	8.0	10
GLECM2012B-900QT	60 Min. / 100 Max.	0.3	300	20	6.0	10
GLECM2012D-900QT	65 Min. / 100 Max.	0.3	300	20	3.5	10
GLECM2012H-900QT	65 Min. / 100 Max.	0.3	300	20	6.0	10
GLECM2012B-121QT	120 +/- 25%	0.25	300	20	5.0	10

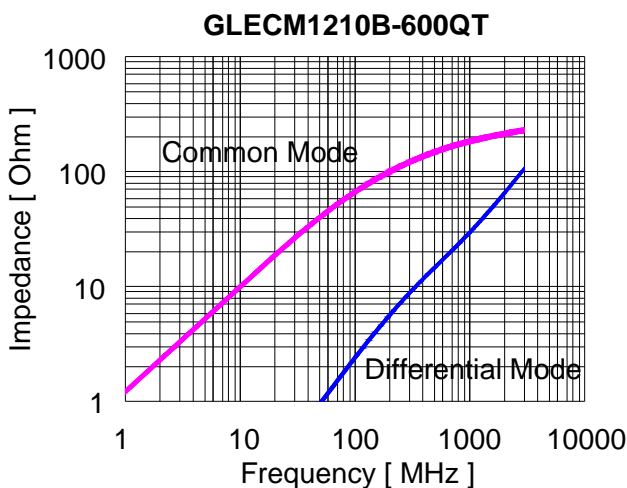
Insertion Loss Graphic result :



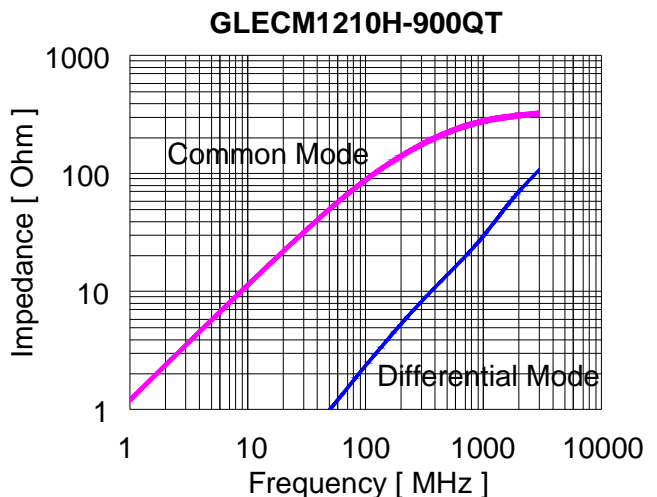
Insertion Loss Graphic result :

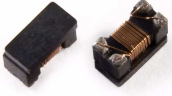


Impedance vs. Frequency Curve / Common Mode and Differential Mode :



Impedance vs. Frequency Curve / Common Mode and Differential Mode :

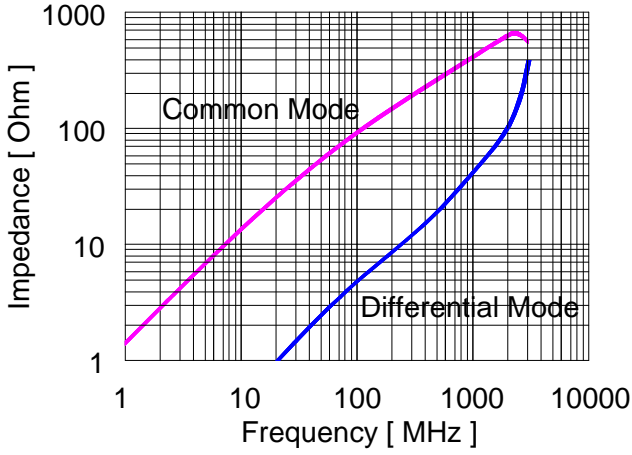




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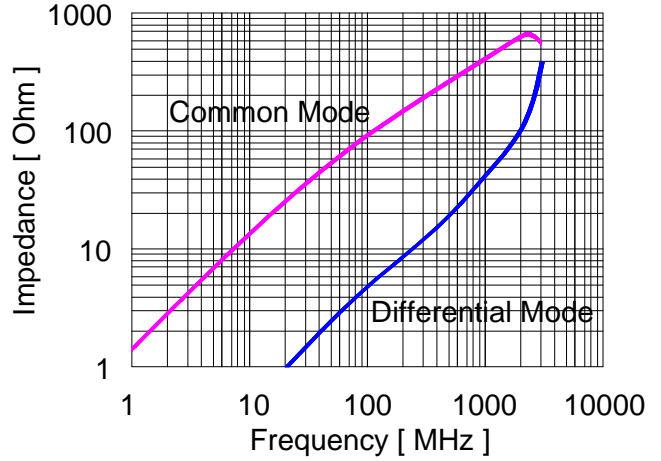
Impedance vs. Frequency Curve / Common Mode and Differential Mode :

GLECM2012B-900QT



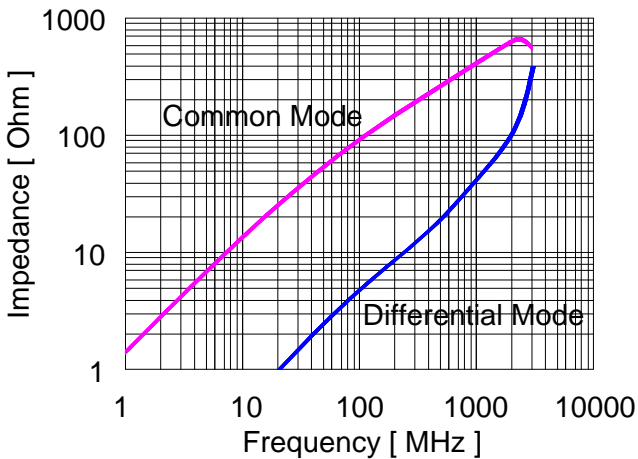
Impedance vs. Frequency Curve / Common Mode and Differential Mode :

GLECM2012D-900QT



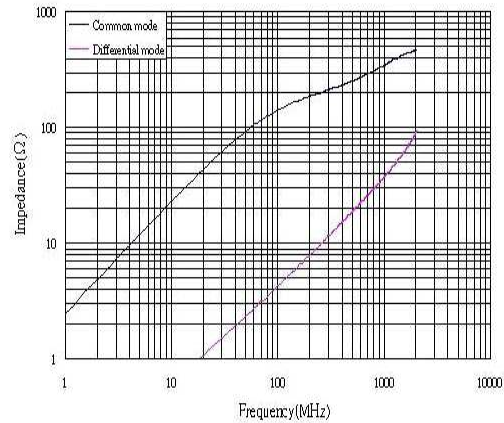
Impedance vs. Frequency Curve / Common Mode and Differential Mode :

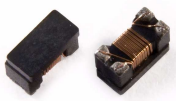
GLECM2012H-900QT



Impedance vs. Frequency Curve / Common Mode and Differential Mode :

GLECM2012PH-900QT

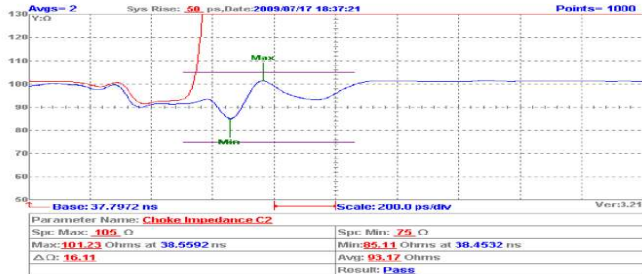


	Product Series Code	GLECM	Brand	GOTREND
	File Version	GLECM-V1R4	Editor	Teddy
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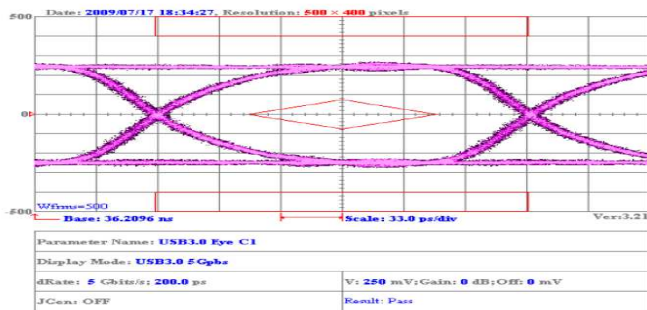
Mated Connector Impedance Matching result & Eye Diagram Graphic result :

GLECM2012B-900QT

Mated Connector Impedance Matching result

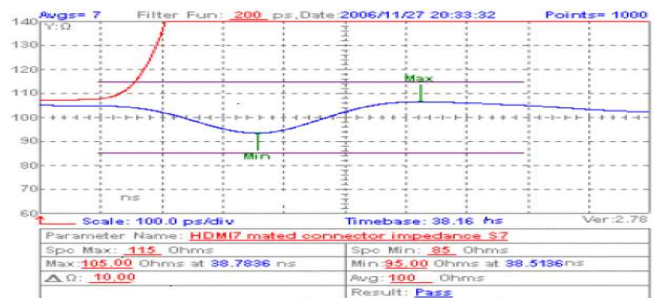


Eye Diagram Graphic result

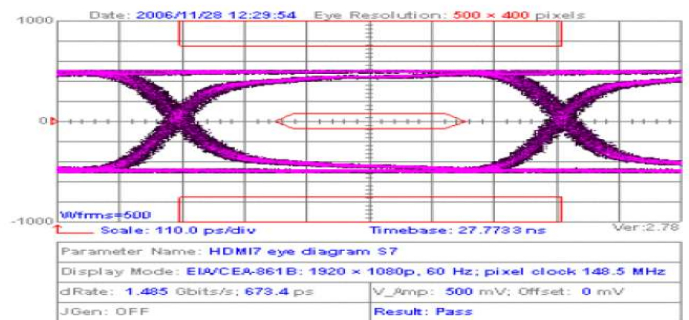


GLECM2012D-900QT

Mated Connector Impedance Matching result

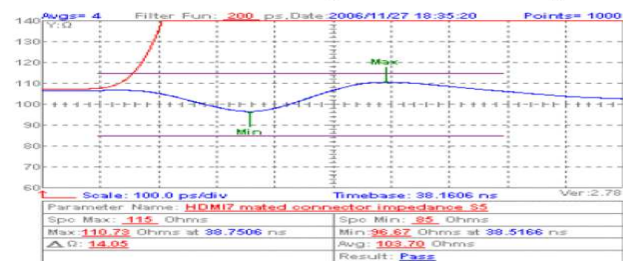


Eye Diagram Graphic result

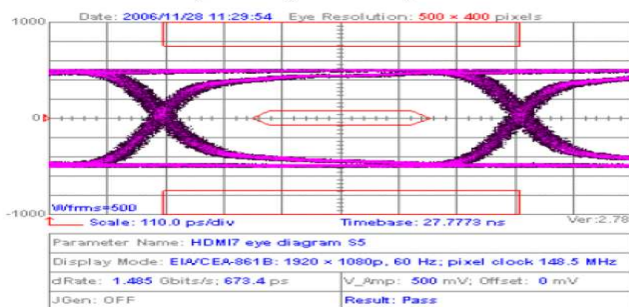


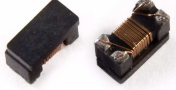
GLECM2012H-900QT

Mated Connector Impedance Matching result

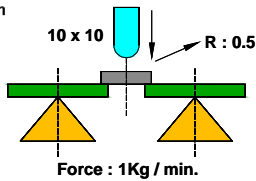
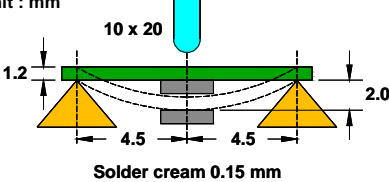
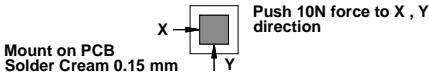


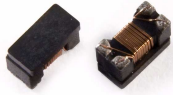
Eye Diagram Graphic result



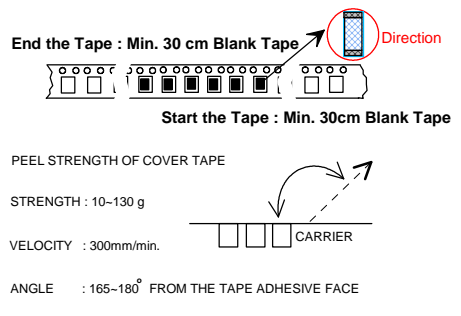
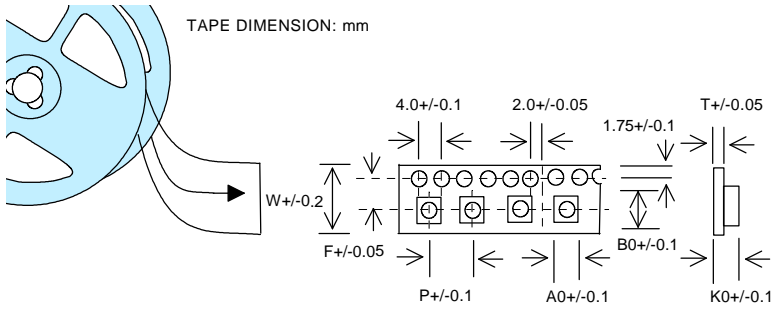
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Reliability Test Result :

NO	ITEM	TEST CONDITIONS	Sample Qty/pcs	Specification	Result																
1	Dimension 本體相關呎吋	Actual Size ...	10	Meet Spec	ok																
2	Thermal Shock (Temperature Cycle) 溫度循環試驗	Temperature : -40 ° C~+85 ° C kept stabilized for 30 minutes each Cycle : 100 Cycle (Power off)	10	Elec. no variation Appearance no deformation	ok																
3	Humidity Resistance 耐濕試驗	Humidity: 90%~ 95% RH Temperature: 40± 2 ° C Test Time: 96± 2 Hours	10	Elec. no variation Appearance no deformation	ok																
4	HighTemperature 耐熱試驗	Temperature: 85± 2 ° C Testing Time: 96± 2 Hours	10	Elec. no variation Appearance no deformation	ok																
5	Low Temperature 耐寒試驗	Temperature: -40 ± 2 ° C Time: 96± 2 Hours	10	Elec. no variation Appearance	ok																
6	Temperature and Humidity Cycle 溫/濕度循環試驗	<table border="1"> <thead> <tr> <th>Step</th> <th>Temp</th> <th>Humidity</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>25± 2 ° C</td> <td>90-95%RH</td> <td>3.0Hr</td> </tr> <tr> <td>2</td> <td>55± 2 ° C</td> <td>95-96%RH</td> <td>5.0Hr</td> </tr> <tr> <td>3</td> <td>25± 2 ° C</td> <td>90-95%RH</td> <td>3.0Hr</td> </tr> </tbody> </table> Cycle: 20 Cycles	Step	Temp	Humidity	Time	1	25± 2 ° C	90-95%RH	3.0Hr	2	55± 2 ° C	95-96%RH	5.0Hr	3	25± 2 ° C	90-95%RH	3.0Hr	10	Elec. no variation Appearance no deformation	ok
Step	Temp	Humidity	Time																		
1	25± 2 ° C	90-95%RH	3.0Hr																		
2	55± 2 ° C	95-96%RH	5.0Hr																		
3	25± 2 ° C	90-95%RH	3.0Hr																		
7	Vibration 振動性試驗	Frequency: 10Hz~50Hz Amplitude: 1.5mm Direction: X,Y,Z Time: 2 Hours each	10	Elec. no variation Appearance no deformation	ok																
8	Solderability 焊錫性試驗	Go through real SMT IR-Reflow.... The profile like our suggest profile. Preheat : 160 ± 10 ° C (90 sec.) Peak : 245 ± 5 ° C Peak Time : 50 Sec. / up 217 ° C	10	Elec. no variation Appearance no deformation	ok																
9	Soldering Heat Resistance 耐熱 焊性試驗	Preheat:160 ± 10 ° C (90 sec) Solder:Sn/Ag/Cu(Pb Free) Solder Temp.: 260 ± 5 ° C Time: 3± 1 seconds	10	Elec. no variation Appearance no deformation	ok																
10	Iron Solder Heat Resistance 手焊耐熱試驗	Solder Temp. 350 ± 5 ° C Flux : Rosin Time : 3± 1 seconds	10	Elec. no variation Appearance no deformation	ok																
11	Bending Strength 折斷力試驗	Unit : mm  Force : 1Kg / min.	10	Elec. no variation Appearance no deformation	ok																
12	Flexure Strength 彎曲試驗	Unit : mm  Solder cream 0.15 mm	10	Elec. no variation Appearance no deformation	ok																
13	Terminal Strength 推/ 拉力試驗	 Mount on PCB Solder Cream 0.15 mm Push 10N force to X , Y direction	10	Must no crack and damage	ok																
14	High-Voltage 高壓電擊試驗	100 V DC Between core & winding	10	Elec. no variation Appearance no deformation	ok																
15	ORT:on going reliability test 負載電氣試驗	Temperature. : 25 ± 3 ° C Load : Allowed DC Current Test Time : 96 ± 2 Hr	10	There should be no evidence of short or open circle	ok																

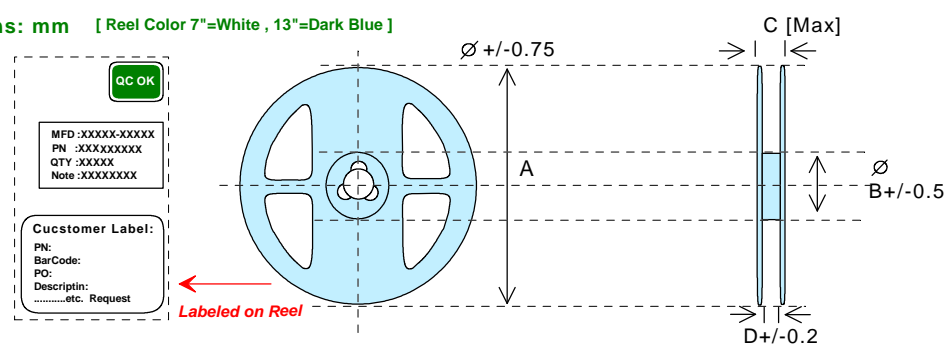


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SIZE/mm	W	A0	B0	F	P	T	K0
1210	8.00	1.20	1.40	3.50	4.00	0.23	1.10
2012	8.00	1.40	2.25	3.50	4.00	0.23	1.40

Reel Dimensions: mm [Reel Color 7"=White , 13"=Dark Blue]



SIZE / mm	A	B	C	D	QTY/REEL
1210	178	60	13	9	3K
2012	178	60	13	9	2K

BOX Package: cm

