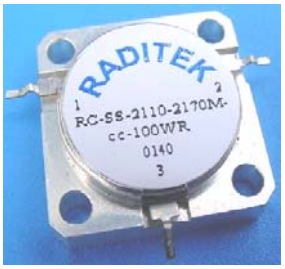
RI-SS-cd (100-110W) or RI-SS-cc (10-20W)
RC-SS-cc (100W-200W)
Stripline Models 1500MHz-3.9GHz



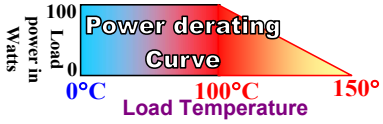
Standard specification examples:

Frequency MHz (F1-F2)	Band	Insertion Loss dB	Isolation dB	Return Loss:	VSWR
1805-1880	DCS	0.29	22	21	1.19:1
1930-1990	PCS	0.29	22	21	1.19:1
2.1-2.17G*	UMTS	0.29	22	21	1.19:1
2.3-2.5G*	WCDMA	0.30	23	21	1.19:1

Circuit tab detail: (silver plated)

Unit	Length	Width cc/cd	Thickness
Inch	0.09	0.025	0.005
mm	2.29	0.64	0.13

Direction of RF:	
R	Default ▶
L	◀



Order Examples: RI-SS-F1-F2-cd-110WR-TABL-H
I=ISOLATOR / C=CIRCULATOR

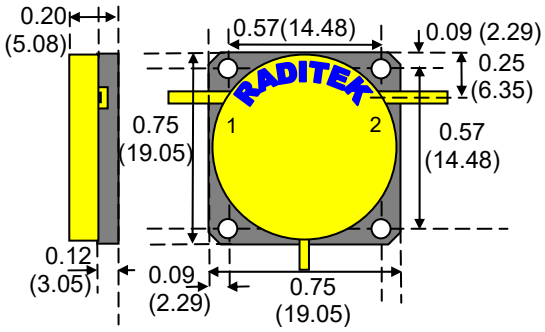
Units: Inch (mm)
Not to scale

See the RI-TT-de-U models for best IMD performance

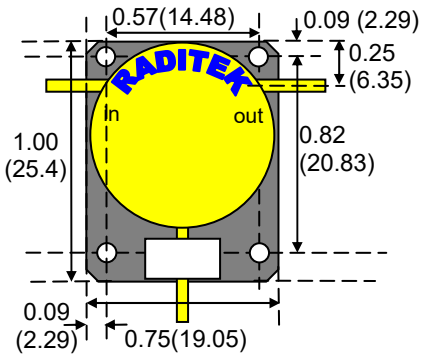
RC-SS-1805-1880M-cc-200WR 200W Forward /100W Reverse power
RI-SS-2.0-2.3-cd-110WR 110W Load Model
RI-SS-2.3-2.5-cd-100WR-A20 100W 20dB Attenuator Model

This unit's performance is guaranteed to far exceed any competition! Other frequencies are available.

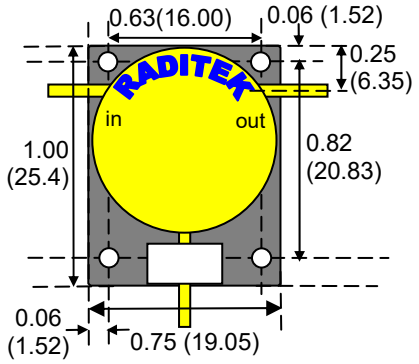
cc Model
Circulator 200W Rev/ 250W Fwd
Isolator 10/15/20W Rev / 250W Fwd



cd Model
110W Isolator or 100W w/Attenuator



cdp Model
110W Isolator or 100W w/Attenuator



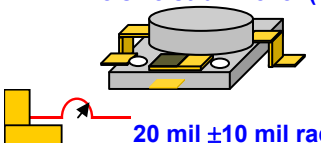
Mounting holes are 0.104" (2.6mm) diameter. **Monitor tab on load is ~ 0.15 (3.8mm) long.**

Options:		
Attenuator type	**-A20; -A30**	**20 dB or 30 dB**
Surface mount	-S	Tab is level with base, Note: Spec degrades IL 0.05 to 0.1dB, Isolation 1to 2dB
Special	-Z	Tab ht. is 62 mils (1.58 mm)
Low Intermodulation.	-H	Optimized for best IMD for its size. Typ.: <-63dBc, 2 x 30W tones, 10MHz apart.
Monitor TAB left (right)		available on Isolators < 2.33GHz only
PM: Relative Phase Match	+/-5° max	To a gold standard average from first production run.
General specifications:		
Max. Fwd power:	**150 Watts**	Average
Max. Rev power (avg): (Load rating)	**110 Watts (cd) 10/15/20W (cc)**	Assumes infinite heat sink Load temp to be < 85°C
Forward Peak Power	**1000 Watts**	into a non short circuit load
Operating temp.	**-20°C to 85°C**	-54°C to 110°C (storage)

Tolerance	.XX	.XXX
Inch	±0.02	±0.010
mm	±0.5	±0.25

Tabs can be bent flush with base for surface mounting "option S"

c size strain relief (option):



20 mil ±10 mil radius (0.5±0.25mm)

Machined surface: $^{63}\sqrt{}$
Housings are made from Aluminum, Magnetically shielded.

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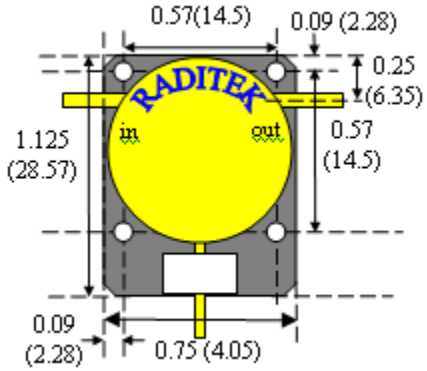
10W ccR- Isolator Detail

10W cc- Isolator Detail



cdt -isolator

(150Watt Load and Attenuator option available)

Environmental Specifications:	
Storage Temperature Range	-59C to +110C
Humidity (Operating & Non Operating)	100% RH without condensation
Sine Wave Vibration	1 to 2000 Hz, 10G
Single Shock	150G 2ms
Multiple Shock	40G 3ms

Mounting screws recommended are either 2-56 or M2.5 Socket

Additional specs for SS-c models

Frequency MHz	BW	Insertion Loss dB Max.	Isolation Min. dB	Return Loss dB	VSWR	@	
1420-1560		0.5	18	18	1.29:1		0.4/18.5/18.5 at room temp
1430-1540		0.5	20	19	1.25:1		p
1435-1535		0.5	20	18	1.29:1		
1500-1600		0.7	16	19	1.25:1		
1550-1750		0.7	16	19	1.25:1		p
1518-1675		0.7	16	19	1.25:1		
1522-1661		0.6	17	20	1.22:1		
1560-1635		0.3	22	22	1.17:1		0.28/21/21 for SMT dc 4/3/15
1600-1630		0.25	21	21	1.19:1		
1600-1750		0.6	17	20	1.22:1		
1610-1626		0.4	23	20	1.22:1	p	
1610-1626.5		0.4	22	20	1.22:1	TH	**approximate SMT 0.45/20/1.25**
1616-1626.5		0.4	22	20	1.22:1	TH	**approximate SMT 0.45/20/1.25**
1616-1800	184M	0.55	16	18	1.29:1		**p**
1620-1660		0.4	22	23	1.15:1		0.4/23/23 @85C
1626-1660		0.4	23	23	1.15:1		
1626-1660 -e		0.3 0.4	22 22	20.8 20.8	1.20:1 1.20:1	-40 to 75C -55 to 100C	
1626.5-1660.5		0.4	23	23	1.15:1		
1626.5-1675		0.4	22	22	1.17:1	p	**approximate SMT 0.45/20/1.25**
1626-1661		0.45	19	21	1.19:1		
1650-1750		0.35	18	19	1.25:1		
1700-1800		0.35	18	19	1.25:1	1700-1800M	
1700-1900		0.40	17	20	1.22:1		
1700-1850		0.35	18	18	1.29:1		0.3db Goal on cd David Do 6-9-10
1700-2000	300M	0.55	16	18	1.29:1		0.6/16/18 smt
1700-2100	400M	0.6	15	17			Dd better

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Frequency MHz	BW	Insertion Loss dB Max.	Isolation Min. dB	Return Loss dB	VSWR	@	
1710-1785		0.35	18	18*	1.29:1	Test SO#8818, RFQ# 16539	* RL <2dB Change -40 to 60 C
1710-1790		0.35	18	18	1.29:1		0.45/17/17 SMT
1710-1850		0.40	18	18	1.29:1		
1710-1885		0.40	18	18	1.29:1		
1750-1780	30M	0.25	21	21	1.19:1		
1750-1810	60M	0.35	21	20	1.20:1		ud RL 0.2/12/13 pc
1750-1820	70M	0.35	21	20	1.20:1		ud RL 0.2/12/13 pc
1750-1850	100M	0.30	20	20	1.20:1		ud RL 0.2/12/13 pc, 0.35/18/1.20 for -S
1750-1885	135M	0.40	19	20	1.20:1		ud RL 0.2/12/13 pc
1750-1950	200M	0.5	18	18	1.29:1		p 0.6/17/17 -40C to -20C
1760-1850		0.30	19	19	1.25:1		
1760-1860	100M	0.30	19	19	1.25:1		p
1768-1798		0.35	21	19	1.25:1	-54 to 71C	
1770-1830		0.35	21	19	1.25:1		
1775-1846	71M	0.30	21	21	1.19:1		
1775-1846		0.25	21	21	1.19:1	-55 to +90C	3/27/08
1785-1800		0.25	22	20	1.22:1		
1785-1805		0.30	22	20	1.22:1		
1800-1880		0.4	20	19	1.25:1		p
1800-1900		0.30	21	21	1.19:1		72300-00004 cdt
1800-2000	200M	0.4	19	19	1.25:1		
1800-2200		0.7	17	17	1.30:1		
1805-1880		0.30	22	21	1.19:1		0.35 @ 95C
1805-1880 -m2		0.35	24	21	1.19:1		0.32/26/22 @ RT –m2 for bbw
1810-1840		0.29	22	21	1.19:1		
1830-1880		0.30	21	21	1.20:1		
1840-1870		0.29	22	21	1.19:1	H low imd	
1840-1870		0.25	25	23	1.15:1		Changed 8/5/04
1844.9-1879.9		0.25	25	23	1.15:1		p
1850-2170		0.28	20	20	1.25:1		Confirmed 3-15-05 SO 5585
1850-1910		0.25	22	21	1.19:1		
1850-1915		0.3	21	20	1.22:1		SMT 0.4/20/19
1850-1990		0.40	20	19	1.25:1	-10 to 85C	0.3/23/1.25 @ RT
1850-1995		0.3	21	19	1.25:1	WB	SMT 0.4/20/18
1850-2050		0.50	18	18	1.29:1	-80 to 85C	
1880-1920		0.35	21	20	1.22:1		
1880-2025		0.50	18	18	1.29:1		
1890-1930		0.35	21	20	1.22:1		
1893-1920		0.30	23	21	1.20:1		
1895-1920		0.30	23	21	1.2:01		
1900-1915		0.30	25	21	1.20:1		
1900-1990		0.29	22	21	1.19:1		
1900-2000		0.30	21.5	21	1.19:1		
1900-2002		0.30	21.5	21	1.19:1		4-3-06
1900-2100		0.35	21	19	1.25:1		
1910-2010		0.30	23	20	1.22:1		
1920-1980		0.30	23	20	1.22:1		SMT 0.4/22/19
1920-1995		0.29	22	21	1.19:1		p
1920-2170		0.45	19	18	1.29:1		SMT 0.55/18/17

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Frequency MHz	BW	Insertion Loss dB Max.	Isolation Min. dB	Return Loss dB	VSWR	@	
1930-1990 -m2	60M	0.35	24	21	1.19:1		Provisional specs to be confirmed 0.32/26/22 @ RT –m2 for bbw
1930-1990	60M	0.35	22	21	1.19:1		p, 0.45/22/21 SMT
1930-1995		0.3	22	20	1.22:1		SMT0.4/21/19
1930-2000	70M	0.35	22	21	1.19:1		p
1940-1960		0.29	23	21	1.19:1		
1950-2050		0.30	23	20	1.22:1		
1977.5-2057.5	80M	0.45	20	20	1.22:1		p
2.0-2.1		0.30	20	20	1.22:1	20W	-30C to 70C
2.0-2.2		0.45	20	19	1.25:1		SO 7535 mt confirmed 10/5/07
2.02-2.12	100M	0.40	20	18	1.29:1		P
2.02-2.29	270M	0.30	20	18	1.29:1		-40 to +70, p
2.0-2.3		0.40	20	18	1.29:1	* 0.45/20/18 -S	SO 4775 confirmed 4-16-04
2.0-2.4		0.50	19	17	1.32:1		Tested 3-29-05, 0.6/18/16 (1.37:1) for SMT model
2.0-2.5		0.70	18	16	1.37:1		SO 4775 confirmed 4-16-04
2.01-2.025	15M	0.30	25	23	1.15:1	Optimized	Dc 7-2-07
2.02-2.28		0.40	20	18	1.29:1		
2.025-2.110	85M	0.25	23	20	1.20:1		p, 0.3/22/1.20 for -S
2.025-2.123	98M	0.25	23	19	1.25:1		
2.025-2.215	190M	0.30	20	20	1.22:1		SMT 0.4/20/20
2.025-2.25		0.35	21	19	1.25:1		
2.050-2.085		0.25	23	19	1.25:1		
2.06-2.36		0.40	20	18	1.29:1		
2.07-2.21		0.35	21	19	1.25:1		
2.10-2.17		0.25	22	21	1.20:1		
2.09-2.19		0.25	22	21	1.20:1		
2.1-2.2		0.35	20	20	1.22:1		04-02-06
2.1-2.3		0.35	18	18	1.29:1		
2.1-2.4		0.4	18	19	1.25:1	-30 to +70C	p
2.1-2.5		0.5	19	17.5	1.30:1		0.6/18/17.5 at 80C (SCD 70121-001-r1)
2.11-2.17		0.25	22	21	1.19:1	SMT 0.35/21/20	Conf 11-16-04 dc
2.11-2.19		0.25	22	21	1.19:1		
2.13-2.37		0.4	18	16	1.37:1		p
2.15-2.35		0.35	18	18	1.29:1		
2.15-2.55		0.40	20	19	1.25:1		Preliminary
2.17-2.20		0.30	21	19	1.25:1		p
2.17-2.21		0.30	21	19	1.25:1		p
2.17-2.32		0.35	18	18	1.29:1		
2.18-2.48		0.40	20	20	1.22:1		
2.185-2.485		0.40	20	20	1.22:1		
2.195-2215		0.25	22	21	1.19:1		2204MHz spot freq
2.2-2.3		0.30	24	23	1.15:1	-20 to +85C	0.4/22/20 for -S
2.2-2.3		0.35	22	21	1.19:1	-40 to +85C	
2.20-2.35		0.30	24	23	1.15:1		0.4/22/20 for SMT
2.2-2.4		0.35	22	23	1.15:1	with Y11-12-sb	EST. 0.4/21/21@-40°C, App.Wt.7g
2.2-2.5		0.50	20	19	1.25:1		0.55/19/19 for –S
2.2-2.6		0.40	20	19	1.25:1		

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Frequency MHz	BW	Insertion Loss dB Max.	Isolation Min. dB	Return Loss dB	VSWR	@	
2.2-2.7		0.50	19	18	1.29:1	-20 to +70C	
2.2-2.8	600M	0.60	18	17	1.32:1		0.65/18/1.6 for -S
2.25-2.32	0.07M	0.35	22	23	1.15:1		0.5/20/1.25 for -S
2.25-2.35		0.35	22	23	1.15:1		mt 9-3-09
2.261-2.499		0.40	21	20	1.22:1		
2.28-2.42		0.3	22	21	1.19:1		0.25/22/21@ room
2.29-2.4		0.25	23	23	1.15:1		
2.3-2.4		0.30	24	23	1.15:1		P .45/22/1.25 for -S
2.3-2.5		0.30	23	21	1.19:1		
2.30-2.55	250M	0.32	22.5	20.8	1.20:1		p
2.3-2.6		0.35	22	20	1.22:1		
2.3-2.7		0.40	19	20	1.22:1	dc 3-14-07	0.45 / 18 / 19 for -S
2.3-3.0	700M	0.6	15	16	1.40:1		Preliminary
2.325-2.865	540M	0.40	19	20	1.22:1		p, 0.5/18/1.4 for -S
2.33-2.36		0.30	24	23	1.15:1		
2.35-2.45		0.30	24	23	1.15:1		
2.35-2.65		0.40	20	20	1.22:1		
2.375-2.385		0.30	24	23	1.15:1		
2.4-2.485		0.30	24	23	1.15:1		p
2.40-2.49		0.30	24	23	1.15:1		p
2.4-2.5		0.30	24	23	1.15:1	Confirmed 1-25-05	0.4/20/20 for –S (ud 8/3/06)
2.4-2.52		0.30	24	23	1.15:1		
2.45-2.55		0.30	24	23	1.15:1		
2.4-2.4835		0.30	22	20.8	1.20:1		-30° + 65°C
2.48-2.5		0.30	24	23	1.15:1		
2.4-2.6		0.35	22	21	1.19:1		-s opt 0.45/19/20 conf dc 4-24-07 with -163 cct (Iso 10W Wt. 6.4g)
2.4-2.7		0.40	20	19	1.25:1		p
2.4-2.75		0.40	20	19	1.25:1		
2.4-2.8		0.50	19.5	19	1.25:1	0.4/20/19 at RT	Mt 2-12-08
2.43-2.47		0.35	22	21	1.19:1		
2.49-2.7		0.35	20	20	1.22:1		0.3/20/20 at room temp
2.5-2.69		0.30	20	20	1.22:1		
2.5-2.7		0.30	20	20	1.22:1		std, -20 to +85
2.5-2.7 (4065)		0.30	19	19	1.25:1		-40 to +65, p
2.5-2.9		0.50	18	18	1.29:1		0.60/17/18 for SMT
2.51-2.57	60	0.3	22	20	1.22:1	0 to 50C	RFQ 10378
2.56-2.69	130MHz	0.40	20	19	1.25:1		p
2.6-2.7	100	0.27	21	20.8	1.20:1	-20 to 70ºC	p
2.6-2.7	100	0.30	20	20.8	1.22:1	-40 to 20ºC	p
2.6-2.7	100	0.35	20	20.8	1.22:1	70 to 85ºC	p
2.6-2.9		0.4	20	20.8	1.20:1		
2.6-3.0	400	0.50	18	18	1.29:1		
2.6-3.2	600	0.6	16	16	1.40:1		Ok, dc 5-30-07, 0.45/17/17 at RT
2.62-2.68	60M	0.3	22	20	1.22:1	0 to 50C	RFQ 10378
2.62-2.69	70M	0.3	22	20	1.22:1		p, 0.4/22/20 SMT

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Frequency MHz	BW	Insertion Loss dB Max.	Isolation Min. dB	Return Loss dB	VSWR	@	
2.624-2.673	49	0.23	30	26	1.10:1	0 to 50C	Wi-Max special circ
2.65-2.66	10M	0.20	35	30	1.07:1	0 to 50C	P
2.66-2.7	40	0.3	22	20	1.22:1		
2.675-2.695	20						P
2.677-2.687	10	0.20	35	30	1.07:1	0 to 50C	Wi-Max special circ
2.69-2.91		0.35	21	19	1.25:1		
2.7-2.9		0.35	21	19	1.25:1		
2.7-3.0		0.38	22	22	1.25:1		
2.7-3.1		0.4	21	21	1.20:1		0.4/21/21@ RT, 0.4/22/22 @85C Confirmed 1/15//07 dc
2.7-3.1 cc 20w load		0.4	19	21	1.20:1		0.4/19/21@ @85C Confirmed 11/17//08 dc
2.7-3.1-AO		0.35	22	22	1.17:1		Special for – AO OT -40°C to 85°C
2.7-3.3		1.00	15	15			
2.7-3.5		1.00	11 12	11 12		0 to 50C	OT Wide band Room Temp Wide band
2.75-2.85	100	0.3	20	20.8	1.20:1		
2.8-3.17	370	0.50	18	18	1.29:1		
2.8-2.9	100	0.3	20	20.8	1.20:1	0 to 60C	
2.8-3.2		0.40	22	22	1.17:1	-20 to 85C	
2.80-3.45		0.8	16	16	1.35:1	0 to 50C	
2.8-3.5		1.00	15	15		0 to 50C	
2.8-3.6	800	1.1	14	14			Preliminary
2.85-3.15	300	0.3	20	23	1.22:1	-40 to +85	P
2.87-3.33		0.3	23	22	1.17:1	-10 to 90 C	
2.9-3.1		0.30	22	20.8	1.20:1		
2.9-3.2	300	0.4	19	19	1.25:1		P
2.9-3.3	400	0.4	19	19	1.25:1	@ -20 to 65C	
2.9-3.3	400	0.4	19	19	1.25:1	@ -40 to +85C	Storage Temp. -40 to +95C
2.9-3.3	400	0.6	21	21	1.20:1	@ -20 to 65C	-SP1
2.9-3.4	500	0.4	18	18	1.29:1	@ -40 to +85C	
2.9-3.5	600	0.5	17	16	1.35:1		Except 0.8/14/12/@2.9 and 0.5/17/16@3.5GHz
2.9-3.6	700	0.6	16	16			Preliminary
2.95-3.05	100	0.3	20	20	1.22:1		
2.95-3.45	500	0.5	20	20	1.22:1		P
3.0-3.2		0.40	20	20	1.22:1		
3.0-3.5	500	0.6	18	18	1.29:1		0.5/18/18 room temp
3.0-3.4	400	0.5	18	18	1.29:1		0.6/17/17 for SMT
3.0-3.6	600	0.6	17	17	1.30:1		P
3.03-3.07	40	0.3	20	20	1.22:1		P
3.1-3.3	200	0.3	20	23	1.22:1		P
3.1-3.4	300	0.3	20	23	1.22:1		dc 3/14/08 SMT 0.4/19/22
3.1-3.5-AST	400	0.3	20	20	1.22:1	40° + 85°C typ	
3.1-3.5	400	0.4	20	20.8	1.20:1	0 to +70	
3.1-3.5 (4085)	400	0.45	20	20	1.25:1		0.5/18/1.30 @ -40° + 85°C
3.1-3.6	500	0.55	18	18	1.29:1		
3.15-3.25	100	0.25	21	23	1.15:1		dc 3/14/08

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Frequency MHz	BW	Insertion Loss dB Max.	Isolation Min. dB	Return Loss dB	VSWR	@	
3.16-3.24	80	0.3	20	21	1.19:1		
3.2-3.6	400	0.5	19	19	1.25:1		0.6/18/18 for –S
3.3-3.4		0.5	20	18	1.29:1		
3.35-3.45		0.5	20	18	1.29:1		0.6/19/18 for -S
3.3-3.5	200	0.40	20	20	1.22:1		
3.3-3.6	300	0.3	21	21	1.19:1	0.4 Max IL	0.5/19/19 for SMT
3.3-3.8	500	0.4	20	20	1.22:1	SO 5892 7-21-05	(0.5/20/1.22 @ -45 to +85)
3.3-3.9	600	0.5	18	18	1.29:1		p
3.325-3.425	300	0.3Typ	21	21	1.19:1	0.4 Max IL	
3.38-3.62	240	0.3	21	21	1.19:1		p
3.4-3.6	300	0.3	21	21	1.19:1	-20 to 85C	0.4/20/20 for SMT
3.4-3.6(4085)	300	0.4	20	20	1.22:1	-40 to 85C	0.5/19/19 for SMT
3.4-3.7	300	0.3Typ	21	21	1.19:1	0.4 Max IL	Standard,
3.4-3.7-S	300	0.4Typ	21	21	1.19:1	0.5 Max IL -s	Surface Mount
3.4-3.8	400	0.4	20.5	21	1.19:1		
3.4-3.9	500	0.5	20	20.8	1.20:1		Code c -30 to 70C
3.4-3.9	500	0.5	19	20	1.25:1		to 85C 9-1-06
3.44-3.74	300	0.3Typ	21	21	1.19:1	0.4 Max IL	0.3/25/21 @ Room Temp
3.47-3.53	60M	0.3	20	21	1.19:1		preliminary
3.5-3.6		0.3	21	21	1.19:1		
3.5-3.7		0.3	21	21	1.19:1		0.35/25/1.20 @ Room Temp
3.5-3.8		0.3	23	20.8	1.20:1		Code c -30 to 70C
3.6-3.8		0.3	21	21	1.19:1		

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