

Multi-Throw DC-18 GHz, SP9T & SP10T Normally Open Coaxial Switch

PART NUMBER	DESCRIPTION
CCR-58S	Commercial Normally Open Multi-throw, DC-18 GHz
CR-58S	Elite Normally Open Multi-throw, DC-18 GHz

The CCR-58S/CR-58S is a broadband, multi-throw, electromechanical coaxial switch designed to switch a microwave signal from a common input to any of 9 or 10 outputs. The characteristic impedance is 50 Ohms. The switches are small using the popular connector spacing on a 1.740" dia. circle. Each position has an individual actuator mechanism allowing random position selection. This also gives the minimum switching time.

With the normally open actuator, all paths are open when the switch is de-energized.



ENVIRONMENTAL AND PHYSICAL CH	IARACTERISTICS
Operating Temperature Commercial Model, CCR-58S Elite Model, CR-58S	−25°C to 65°C −40°C to 85°C
Vibration (MIL-STD-202 Method 214, Condition D, non-operating)	10 g's RMS
Shock (MIL-STD-202 Method 213, Condition D, non-operating)	500 g's
Standard Actuator Life Actuator Life w/ Additional Features	3,000,000 cycles 1,000,000 cycles
Connector Type	SMA
Humidity (Moisture Seal)	Available
Weight	9 oz. (255.2G) (max.)

ELECTRICAL CHARACTERISTICS									
Form Factor		Throw before		9					
Frequency Range	DC–18 GHz								
Characteristic Impedance	50 Ohms								
Operate Time	20 ms	(max	.)						
Release Time	20 ms	20 ms (max.)							
Actuation Voltage Available	12	15	24	28	V				
Actuation Current, max. @ ambient	580	720	345	405	mA				

TYPICAL PERFORMANCE CHARACTERISTICS									
Frequency	DC–2 GHz	2–4 GHz	4–8 GHz	8-12 GHz	12-18 GHz				
Insertion Loss, dB, typ.	0.20	0.30	0.40	0.50	0.70				
Isolation, dB, typ.	80	75	70	65	60				
VSWR , typ.	1.2:1	1.30:1	1.40:1	1.50:1	1.70:1				

For maximum limits, please see charts on pages 7

#### PART NUMBERING SYSTEM

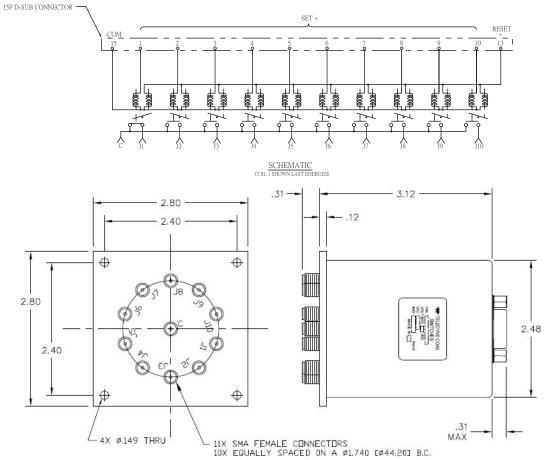
	Series Connectors Actuator Voltage	<u>CCR-58</u> <u>S</u> 1		Options Actuator Type Number of Positions
CONNECTOR	ACTUATOR VOLTAGE	NUMBER OF POSITIONS	ACTUATOR TYPE	OPTIONS
S: SMA FEMALE	1: 28 VDC NORMALLY OPEN	9: SP9T	0: NO INDICATOR CONTACTS	T: TTL DRIVERS WITH DIODES
	2: 15 VDC NORMALLY OPEN	0: SP10T	C: INDICATOR CONTACTS***	D: COIL TRANSIENT SUPPRESSION DIODES
	3: 12 VDC NORMALLY OPEN			S: D-SUB CONNECTOR*
	4: 24 VDC NORMALLY OPEN			TD: DECODERS AND TTL DRIVERS WITH DIODES
		**SEE PARTS	LIST ON PAGE 10	M: MOISTURE SEAL
For additional	options, please contact	factory.		D-Sub Connector may be 15 or 26 pin depending number of throws. (See Connector Pinout page)



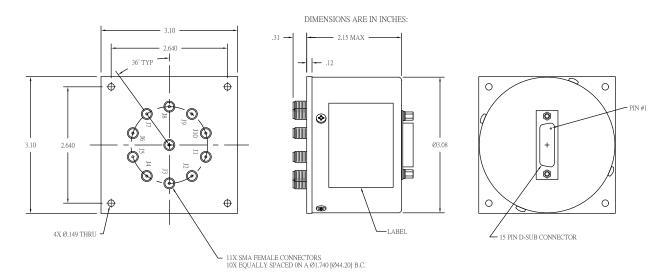
Multi-Throw DC–18 GHz, SP9T & SP10T Normally Open Coaxial Switch

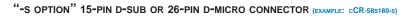


#### SCHEMATICS AND MECHANICAL OUTLINE



"-TS OR -TDS OPTIONS" 15-PIN D-SUB OR 26-PIN D-MICRO CONNECTOR (EXAMPLE: CCR-58s180-TS OR CCR-58s180-TDS)





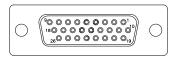


Normally Open Coaxial Switch

EXAMPLE	CCR-58S190-S	CCR-58S19C-S	CCR-58S190-TS	CCR-58S19C-TS	CCR-58S190-TDS	CCR-58S19C-TDS
INDICATOR		Yes		Yes		Yes
TTL			Yes	Yes		
DECODERS & TTL					Yes	Yes
PIN NO.	15-PIN	26-PIN	15-PIN	26-PIN	15-PIN	26-PIN
1	PORT 1	PORT 1	TTL1	TTL 1	LOGIC 1	LOGIC 1
2	PORT 2	PORT 2	TTL 2	TTL 2	LOGIC 2	LOGIC 2
3	PORT 3	PORT 3	TTL 3	TTL 3	LOGIC 3	LOGIC 3
4	PORT 4	PORT 4	TTL 4	TTL 4	LOGIC 4	LOGIC 4
5	PORT 5	PORT 5	TTL 5	TTL 5		
6	PORT 6	PORT 6	TTL6	TTL 6		
7	PORT 7	PORT 7	TTL 7	TTL 7		
8	PORT 8	PORT 8	TTL 8	TTL 8		
9	PORT 9	PORT 9	TTL 9	TTL 9		
10						
11						
12						
13			Vsw	Vsw	Vsw	Vsw
14						
15	Common	Common	Common	Common	Common	Common
16		D Indicator (com)		D Indicator (com)		D Indicator (com)
17		E Indicator		E Indicator		E Indicator
18		F Indicator		F Indicator		F Indicator
19		G Indicator		G Indicator		G Indicator
20		H Indicator		H Indicator		H Indicator
21		K Indicator		K Indicator		K Indicator
22		L Indicator		L Indicator		L Indicator
23		M Indicator		M Indicator		M Indicator
24		N Indicator		N Indicator		N Indicator
25		P Indicator		P Indicator		P Indicator
26						

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**15-PIN D-SUB CONNECTOR** 



26-PIN D-SUB CONNECTOR

Multi-Throw DC–18 GHz, SP9T & SP10T Normally Open Coaxial Switch



#### SP9T TRUTH TABLE Normally Open CCR-58SX9C-T

00											
	Logic Input										
1	2	3	4	5	6	7	8	9			
1	0	0	0	0	0	0	0	0			
0	1	0	0	0	0	0	0	0			
0	0	1	0	0	0	0	0	0			
0	0	0	1	0	0	0	0	0			
0	0	0	0	1	0	0	0	0			
0	0	0	0	0	1	0	0	0			
0	0	0	0	0	0	1	0	0			
0	0	0	0	0	0	0	1	0			
0	0	0	0	0	0	0	0	1			

	RF Path									
J1	J2	J3	J4	J5	J6	J7	J8	J9		
On	Off	Off	Off	Off	Off	Off	Off	Off		
Off	On	Off								
Off	Off	On	Off	Off	Off	Off	Off	Off		
Off	Off	Off	On	Off	Off	Off	Off	Off		
Off	Off	Off	Off	On	Off	Off	Off	Off		
Off	Off	Off	Off	Off	On	Off	Off	Off		
Off	Off	Off	Off	Off	Off	On	Off	Off		
Off	Off	Off	Off	Off	Off	Off	On	Off		
Off	Off	Off	Off	Off	Off	Off	Off	On		

Indicator Switches										
Е	F	G	Н	К	L	М	Ν	Ρ		
С	0	0	0	0	0	0	0	0		
0	С	0	0	0	0	0	0	0		
0	0	С	0	0	0	0	0	0		
0	0	0	С	0	0	0	0	0		
0	0	0	0	С	0	0	0	0		
0	0	0	0	0	С	0	0	0		
0	0	0	0	0	0	С	0	0		
0	0	0	0	0	0	0	С	0		
0	0	0	0	0	0	0	0	С		

#### TRUTH TABLE Normally Open CCR-58SX9C-TD Logic Input

				RF Path	٦			
J1	J2	J3	J4	J5	J6	J7	J8	J9
On	Off	Off	Off	Off	Off	Off	Off	Off
Off	On	Off	Off	Off	Off	Off	Off	Off
Off	Off	On	Off	Off	Off	Off	Off	Off
Off	Off	Off	On	Off	Off	Off	Off	Off
Off	Off	Off	Off	On	Off	Off	Off	Off
Off	Off	Off	Off	Off	On	Off	Off	Off
Off	Off	Off	Off	Off	Off	On	Off	Off
Off	Off	Off	Off	Off	Off	Off	On	Off
Off	Off	Off	Off	Off	Off	Off	Off	On
Off	Off	Off	Off	Off	Off	Off	Off	Off

#### Indicator Switches

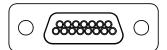
Е	F	G	н	К	L	М	Ν	Ρ
С	0	0	0	0	0	0	0	0
0	С	0	0	0	0	0	0	0
0	0	С	0	0	0	0	0	0
0	0	0	С	0	0	0	0	0
0	0	0	0	С	0	0	0	0
0	0	0	0	0	С	0	0	0
0	0	0	0	0	0	С	0	0
0	0	0	0	0	0	0	С	0
0	0	0	0	0	0	0	0	С
0	0	0	0	0	0	0	0	0



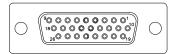
### Series CCR-58S/CR-58S Multi-Throw DC-18 GHz, SP9T & SP10T

Normally Open Coaxial Switch

CONNECTOR	PINOUT FOR NO	RMALLY OPEN	SP101 MULTI-TI	HROW SWITCHE	5	
EXAMPLE	CCR-58S100-S	CCR-58S10C-S	CCR-58S100- TS	CCR-58S10C-TS	CCR-58S100-TDS	CCR-58S10C-TDS
INDICATOR		Yes		Yes		Yes
TTL			Yes	Yes		
DECODERS & TTL					Yes	Yes
PIN NO.	15-PIN	26-PIN	15-PIN	26-PIN	15-PIN	26-PIN
1	PORT 1	PORT 1	TTL 1	TTL1	LOGIC 1	LOGIC 1
2	PORT 2	PORT 2	TTL 2	TTL 2	LOGIC 2	LOGIC 2
3	PORT 3	PORT 3	TTL 3	TTL 3	LOGIC 3	LOGIC 3
4	PORT 4	PORT 4	TTL 4	TTL4	LOGIC 4	LOGIC 4
5	PORT 5	PORT 5	TTL 5	TTL 5		
6	PORT 6	PORT 6	TTL 6	TTL 6		
7	PORT 7	PORT 7	TTL 7	TTL7		
8	PORT 8	PORT 8	TTL 8	TTL 8		
9	PORT 9	PORT 9	TTL 9	TTL 9		
10	PORT 10	PORT 10	TTL 10	TTL 10		
11						
12						
13			Vsw	Vsw	Vsw	Vsw
14						
15	Common	Common	Common	Common	Common	Common
16		D Indicator (com)		D Indicator (com)		D Indicator (com)
17		E Indicator		E Indicator		E Indicator
18		F Indicator		F Indicator		F Indicator
19		G Indicator		G Indicator		G Indicator
20		H Indicator		H Indicator		H Indicator
21		K Indicator		K Indicator		K Indicator
22		L Indicator		L Indicator		L Indicator
23		M Indicator		M Indicator		M Indicator
24		N Indicator		N Indicator		N Indicator
25		P Indicator		P Indicator		P Indicator
26		T Indicator		T Indicator		T Indicator



**15-PIN D-SUB CONNECTOR** 



<sup>26-</sup>PIN D-SUB CONNECTOR

Multi-Throw DC–18 GHz, SP9T & SP10T Normally Open Coaxial Switch



## SP10T TRUTH TABLE Normally Open

CC	-R-5	58S>		-1																									
				Logic	: Inpu	ıt								RF	Path								Indi	cator	Swite	ches			
1	2	3	4	5	6	7	8	9	10	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	Е	F	G	Н	к	L	М	Ν	Ρ	Т
1	0	0	0	0	0	0	0	0	0	On	Off	Off	Off	Off	Off	Off	Off	Off	Off	С	0	0	0	0	0	0	0	0	0
0	1	0	0	0	0	0	0	0	0	Off	On	Off	Off	Off	Off	Off	Off	Off	Off	0	С	0	0	0	0	0	0	0	0
0	0	1	0	0	0	0	0	0	0	Off	Off	On	Off	Off	Off	Off	Off	Off	Off	0	0	С	0	0	0	0	0	0	0
0	0	0	1	0	0	0	0	0	0	Off	Off	Off	On	Off	Off	Off	Off	Off	Off	0	0	0	С	0	0	0	0	0	0
0	0	0	0	1	0	0	0	0	0	Off	Off	Off	Off	On	Off	Off	Off	Off	Off	0	0	0	0	С	0	0	0	0	0
0	0	0	0	0	1	0	0	0	0	Off	Off	Off	Off	Off	On	Off	Off	Off	Off	0	0	0	0	0	С	0	0	0	0
0	0	0	0	0	0	1	0	0	0	Off	Off	Off	Off	Off	Off	On	Off	Off	Off	0	0	0	0	0	0	С	0	0	0
0	0	0	0	0	0	0	1	0	0	Off	Off	Off	Off	Off	Off	Off	On	Off	Off	0	0	0	0	0	0	0	С	0	0
0	0	0	0	0	0	0	0	1	0	Off	Off	Off	Off	Off	Off	Off	Off	On	Off	0	0	0	0	0	0	0	0	С	0
0	0	0	0	0	0	0	0	0	1	Off	Off	Off	Off	Off	Off	Off	Off	Off	On	0	0	0	0	0	0	0	0	0	С

#### TRUTH TABLE Normally Open CCR-58SX0C-TD

	Logic			
1	2	3	4	J1
0	0	0	0	On
1	0	0	0	Off
0	1	0	0	Off
1	1	0	0	Off
0	0	1	0	Off
1	0	1	0	Off
0	1	1	0	Off
1	1	1	0	Off
0	0	0	1	Off
1	0	0	1	Off
0	1	0	1	Off

					RF	Path				
_	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10
	On	Off	Off	Off	Off	Off	Off	Off	Off	Off
_	Off	On	Off	Off	Off	Off	Off	Off	Off	Off
_	Off	Off	On	Off	Off	Off	Off	Off	Off	Off
	Off	Off	Off	On	Off	Off	Off	Off	Off	Off
	Off	Off	Off	Off	On	Off	Off	Off	Off	Off
	Off	Off	Off	Off	Off	On	Off	Off	Off	Off
	Off	Off	Off	Off	Off	Off	On	Off	Off	Off
	Off	Off	Off	Off	Off	Off	Off	On	Off	Off
	Off	Off	Off	Off	Off	Off	Off	Off	On	Off
_	Off	Off	Off	Off	Off	Off	Off	Off	Off	On
	Off	Off	Off	Off	Off	Off	Off	Off	Off	Off

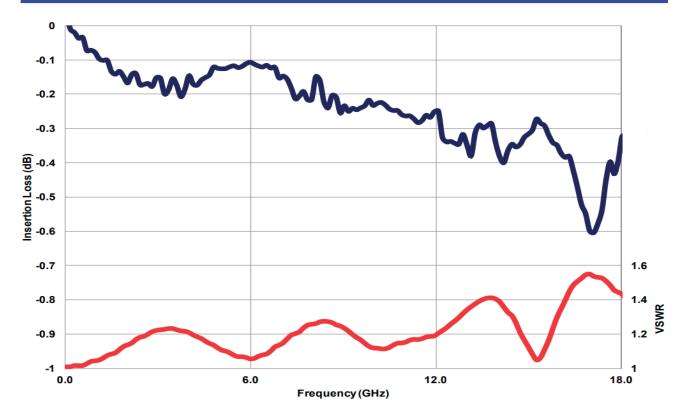
Indicator Switches										
Е	F	G	н	К	L	М	Ν	Ρ	т	
С	0	0	0	0	0	0	0	0	0	
0	С	0	0	0	0	0	0	0	0	
0	0	С	0	0	0	0	0	0	0	
0	0	0	С	0	0	0	0	0	0	
0	0	0	0	С	0	0	0	0	0	
0	0	0	0	0	С	0	0	0	0	
0	0	0	0	0	0	С	0	0	0	
0	0	0	0	0	0	0	С	0	0	
0	0	0	0	0	0	0	0	С	0	
0	0	0	0	0	0	0	0	0	С	
0	0	0	0	0	0	0	0	0	0	

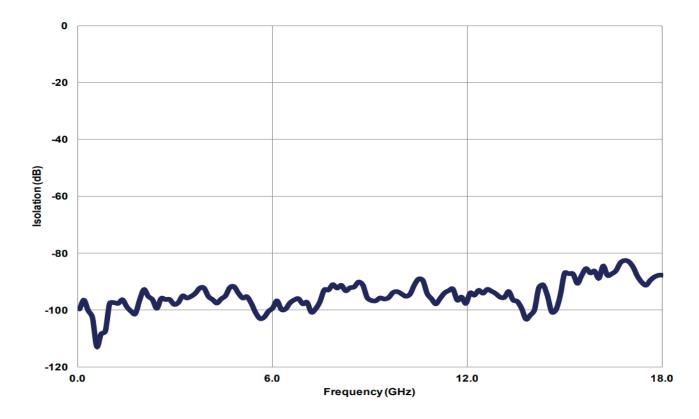


Series CCR-58S/CR-58S Multi-Throw DC-18 GHz, SP9T & SP10T

Normally Open Coaxial Switch

TYPICAL RF PERFORMANCE CURVES

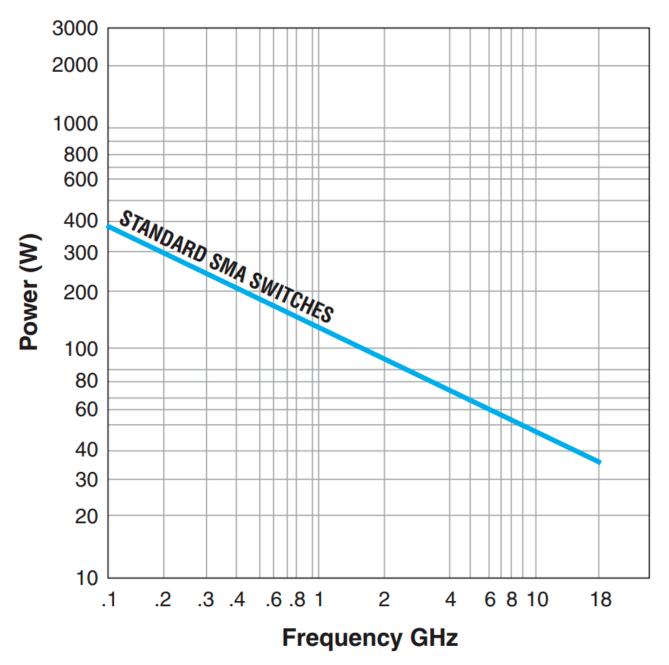






TYPICAL POWER PERFORMANCE CURVE

# **Power Handling vs. Frequency**



Estimates based on the following reference conditions:

- Ambient temperature of 40°C or less
- Sea level operation
- · Load VSWR of 1.20:1 maximum

• No high-power (hot) switching

Please contact Teledyne Coax Switches for derating factors when applications do not meet the foregoing reference conditions.



#### GLOSSARY

#### Actuator

An actuator is the electromechanical mechanism that transfers the RF contacts from one position to another upon DC command.

#### Arc Suppression Diode

A diode is connected in parallel with the coil. This diode limits the "reverse EMF spike" generated when the coil deenergizes to 0.7 volts. The diode cathode is connected to the positive side of the coil and the anode is connected to the negative side.

#### Date Code

All switches are marked with either a unique serial number or a date code. Date codes are in accordance with MIL-STD-1285 Paragraph 5.2.5 and consist of four digits. The first two digits define the year and the last two digits define the week of the year (YYWW). Thus, 1032 identifies switches that passed through final inspection during the 32nd week of 2010.

#### Indicator

Indicators tell the system which position the switch is in. Other names for indicators are telemetry contacts or tellback circuit. Indicators are usually a set of internally mounted DC contacts linked to the actuator. They can be wired to digital input lines, status lights, or interlocks. Unless otherwise specified, the maximum indicator contact rating is 30 Vdc, 50 mA, or 1.5 Watts into a resistive load.

#### Isolation

Isolation is the measure of the power level at the output connector of an unconnected RF channel as referenced to the power at the input connector. It is specified in dB below the input power level.

#### **Multi-Throw Switch**

A multi-throw switch is a switch with one input and three or more output ports. The CCR-58 can switch a microwave signal to any of 10 outputs from a single common input.

#### **Switching Time**

Switching time is the total interval beginning with the arrival of the leading edge of the command pulse at the switch DC input and ending with the completion of the switch transfer, including contact bounce. It consists of three parts: (1) inductive delay in the coil, (2) transfer time of the physical movement of the contacts, and (3) the bounce time of the RF contacts.

#### **TTL Switch Driver Option**

As a special option, switch drivers can be provided for both failsafe and latching switches, which are compatible with industry-standard low-power Schottky TTL circuits.

#### **TD-Option**

This option includes a decoder. The 3-bit parallel command is decoded to internally select the appropriate position. See the logic tables. The TD-Option increases the Vsw supply current demand by 50mA max at 28Vdc and +20°C.

#### **Performance Parameters vs Frequency**

Generally speaking, the RF performance of coaxial switches is frequency dependent. With increasing frequency, VSWR and insertion loss increase while isolation decreases. All data sheets specify these three parameters as "worst case" at the highest operating frequency. If the switch is to be used over a narrow frequency band, better performance can be achieved.

#### **Actuator Current vs Temperature**

The resistance of the actuator coil varies as a function of temperature. There is an inverse relationship between the operating temperature of the switch and the actuator drive current. For switches operating at 28 VDC, the approximate actuator drive current at temperature, T, can be calculated using the equation:

$$I_{\rm T} = \frac{I_{\rm A}}{[1 + .00385 \, ({\rm T}-20)]}$$

Where:

 $I_{T}$  = Actuator current at temperature, T

I<sub>A</sub> = Room temperature actuator current – see data sheet

T = Temperature of interest in °C

#### Magnetic Sensitivity

An electro-mechanical switch can be sensitive to ferrous materials and external magnetic fields. Neighboring ferrous materials should be permitted no closer than 0.5 inches and adjacent external magnetic fields should be limited to a flux density of less than 5 Gauss.

Multi-Throw DC–18 GHz, SP9T & SP10T Normally Open Coaxial Switch



#### NORMALLY OPEN CCR-58S PART NUMBER LIST

11     CCR-58SX9C-TDS     53     CCR-58SX90-TDS     95     CCR-58SX0C-TDS       12     CCR-58SX9C-TM     54     CCR-58SX90-TM     96     CCR-58SX0C-TM       13     CCR-58SX9C-TMS     55     CCR-58SX90-TMS     97     CCR-58SX0C-TMS       14     CCR-58SX9C-TS     56     CCR-58SX90-TS     98     CCR-58SX0C-TS       15     CCR-58SX90     57     CCR-58SX0C     99     CCR-58SX00       16     CCR-58SX90-D     58     CCR-58SX0C-D     100     CCR-58SX00-D       17     CCR-58SX90-DM     59     CCR-58SX0C-DM     101     CCR-58SX00-DM       18     CCR-58SX90-M     60     CCR-58SX0C-M     102     CCR-58SX00-M       19     CCR-58SX90-MS     61     CCR-58SX0C-S     104     CCR-58SX00-S       21     CCR-58SX90-T     63     CCR-58SX0C-T     105     CCR-58SX00-T       22     CCR-58SX90-T     64     CCR-58SX0C-TD     106     CCR-58SX00-TD       23     CCR-58SX90-TDM     65     CCR-58SX0C-TDM     107     CCR-58SX00-TDM<		1				
2     CCR-585X9C-D     44     CCR-585X9C-D     86     CCR-585X9C-D       3     CCR-585X9C-DM     45     CCR-585X90-DM     87     CCR-585X9C-M       4     CCR-585X9C-M     46     CCR-585X90-M     88     CCR-585X9C-M       5     CCR-585X9C-M     47     CCR-585X90-M     89     CCR-585X9C-M       6     CCR-585X9C-T     49     CCR-585X90-T     90     CCR-585X0C-M       8     CCR-585X9C-TD     50     CCR-585X90-TD     92     CCR-585X0C-TD       9     CCR-585X9C-TD     51     CCR-585X90-TD     93     CCR-585X0C-TD       10     CCR-585X9C-TD     53     CCR-585X90-TD     95     CCR-585X0C-TM       11     CCR-585X9C-TM     54     CCR-585X90-TS     98     CCR-585X0C-TM       12     CCR-585X9C-TM     55     CCR-585X90-TS     98     CCR-585X0C-TM       13     CCR-585X90-TM     59     CCR-585X00-TM     101     CCR-585X00-TM       14     CCR-585X90-T     58     CCR-585X00-T     100     CCR-585X00-TM		PART NO.		Part No.		Part No.
3     CCR-58SX9C-DM     45     CCR-58SX90-DM     87     CCR-58SX0C-DM       4     CCR-58SX9C-M     46     CCR-58SX90-M     88     CCR-58SX0C-MS       5     CCR-58SX9C-S     48     CCR-58SX90-S     90     CCR-58SX0C-MS       6     CCR-58SX9C-T     49     CCR-58SX90-T     91     CCR-58SX0C-T       8     CCR-58SX9C-TDM     51     CCR-58SX90-TDM     93     CCR-58SX0C-TDM       9     CCR-58SX9C-TDM     52     CCR-58SX90-TDM     94     CCR-58SX0C-TDM       10     CCR-58SX9C-TDS     53     CCR-58SX90-TDS     95     CCR-58SX0C-TM       11     CCR-58SX9C-TM     54     CCR-58SX90-TM     96     CCR-58SX0C-TM       12     CCR-58SX9C-TM     55     CCR-58SX00-TM     97     CCR-58SX0C-TM       13     CCR-58SX90-TM     55     CCR-58SX0C-M     100     CCR-58SX00-TM       14     CCR-58SX90-TD     58     CCR-58SX00-D     100     CCR-58SX00-D       16     CCR-58SX90-TD     58     CCR-58SX00-D     100     CCR-58SX00-M <th>1</th> <th>CCR-58SX9C</th> <th>43</th> <th>CCR-58SX90</th> <th>85</th> <th>CCR-58SX0C</th>	1	CCR-58SX9C	43	CCR-58SX90	85	CCR-58SX0C
4     CCR-58SX9C-M     46     CCR-58SX90-M     88     CCR-58SX0C-M       5     CCR-58SX9C-MS     47     CCR-58SX90-MS     89     CCR-58SX0C-MS       6     CCR-58SX9C-T     49     CCR-58SX90-T     91     CCR-58SX0C-T       7     CCR-58SX9C-TD     50     CCR-58SX90-TD     92     CCR-58SX0C-TD       9     CCR-58SX9C-TDM     51     CCR-58SX90-TD     93     CCR-58SX0C-TD       10     CCR-58SX9C-TDMS     52     CCR-58SX90-TD     94     CCR-58SX0C-TMS       11     CCR-58SX9C-TMS     55     CCR-58SX90-TM     96     CCR-58SX0C-TMS       12     CCR-58SX9C-TMS     55     CCR-58SX0-TM     97     CCR-58SX0C-TMS       14     CCR-58SX90-TS     56     CCR-58SX0-D     99     CCR-58SX0-TM       14     CCR-58SX90-D     58     CCR-58SX0-D     100     CCR-58SX0-TM       16     CCR-58SX90-D     59     CCR-58SX0-TM     101     CCR-58SX0-TM       16     CCR-58SX0-M     61     CCR-58SX0-TM     102     CCR-58SX0-TM <	2	CCR-58SX9C-D	44	CCR-58SX90-D	86	CCR-58SX0C-D
5     CCR-58SX9C-MS     47     CCR-58SX90-MS     89     CCR-58SX0C-MS       6     CCR-58SX9C-S     48     CCR-58SX90-T     90     CCR-58SX0C-T       7     CCR-58SX9C-T     49     CCR-58SX90-T     91     CCR-58SX0C-TD       8     CCR-58SX9C-TD     50     CCR-58SX90-TD     92     CCR-58SX0C-TD       9     CCR-58SX9C-TDM     51     CCR-58SX90-TDM     93     CCR-58SX0C-TD       10     CCR-58SX9C-TDS     53     CCR-58SX90-TDS     95     CCR-58SX0C-TD       11     CCR-58SX9C-TM     54     CCR-58SX90-TM     96     CCR-58SX0C-TM       12     CCR-58SX9C-TM     54     CCR-58SX90-TS     98     CCR-58SX0C-TS       14     CCR-58SX90-D     58     CCR-58SX0C-M     100     CCR-58SX00-D       15     CCR-58SX90-D     58     CCR-58SX0C-M     101     CCR-58SX00-D       16     CCR-58SX90-D     59     CCR-58SX00-M     101     CCR-58SX00-D       16     CCR-58SX90-D     58     CCR-58SX0C-D     100     CCR-58SX00-D	3	CCR-58SX9C-DM	45	CCR-58SX90-DM	87	CCR-58SX0C-DM
6     CCR-58SX9C-S     48     CCR-58SX9O-S     90     CCR-58SX0C-S       7     CCR-58SX9C-T     49     CCR-58SX9O-TD     91     CCR-58SX0C-TD       8     CCR-58SX9C-TD     50     CCR-58SX9O-TD     92     CCR-58SX0C-TDM       9     CCR-58SX9C-TDM     51     CCR-58SX90-TDM     93     CCR-58SX0C-TDM       10     CCR-58SX9C-TDS     53     CCR-58SX90-TDS     95     CCR-58SX0C-TDM       11     CCR-58SX9C-TM     54     CCR-58SX90-TM     96     CCR-58SX0C-TM       12     CCR-58SX90-TS     55     CCR-58SX90-TS     97     CCR-58SX0C-TM       13     CCR-58SX90-TS     56     CCR-58SX0C-D     100     CCR-58SX00-D       14     CCR-58SX90-D     58     CCR-58SX0C-D     100     CCR-58SX00-D       16     CCR-58SX90-M     60     CCR-58SX0C-M     102     CCR-58SX00-M       19     CCR-58SX90-TD     61     CCR-58SX0C-T     105     CCR-58SX00-TD       20     CCR-58SX90-TD     62     CCR-58SX0C-TD     106     CCR-58SX00-TD<	4	CCR-58SX9C-M	46	CCR-58SX90-M	88	CCR-58SX0C-M
1     1	5	CCR-58SX9C-MS	47	CCR-58SX90-MS	89	CCR-58SX0C-MS
8     CCR-58SX9C-TD     50     CCR-58SX90-TD     92     CCR-58SX0C-TD       9     CCR-58SX9C-TDM     51     CCR-58SX90-TDM     93     CCR-58SX0C-TD       10     CCR-58SX9C-TDMS     52     CCR-58SX90-TDMS     94     CCR-58SX0C-TDMS       11     CCR-58SX9C-TDS     53     CCR-58SX90-TDS     95     CCR-58SX0C-TMS       12     CCR-58SX9C-TM     54     CCR-58SX90-TM     96     CCR-58SX0C-TMS       13     CCR-58SX9C-TM     56     CCR-58SX90-TM     97     CCR-58SX0C-TMS       14     CCR-58SX90-TS     56     CCR-58SX0C-D     100     CCR-58SX00-TS       16     CCR-58SX90-D     58     CCR-58SX0C-D     101     CCR-58SX00-D       16     CCR-58SX90-M     60     CCR-58SX0C-M     102     CCR-58SX00-D       17     CCR-58SX90-M     61     CCR-58SX0C-TD     106     CCR-58SX00-D       17     CCR-58SX90-M     61     CCR-58SX0C-TD     101     CCR-58SX00-D       18     CCR-58SX90-TD     64     CCR-58SX0C-TD     106     CCR	6	CCR-58SX9C-S	48	CCR-58SX90-S	90	CCR-58SX0C-S
9     CCR-58SX9C-TDM     51     CCR-58SX90-TDM     93     CCR-58SX0C-TDM       10     CCR-58SX9C-TDMS     52     CCR-58SX90-TDMS     94     CCR-58SX0C-TDMS       11     CCR-58SX9C-TDS     53     CCR-58SX90-TDS     95     CCR-58SX0C-TDS       12     CCR-58SX9C-TM     54     CCR-58SX90-TM     96     CCR-58SX0C-TMS       13     CCR-58SX9C-TS     56     CCR-58SX90-TS     98     CCR-58SX0C-TMS       14     CCR-58SX90-TS     56     CCR-58SX0C-D     98     CCR-58SX00-TS       15     CCR-58SX90-D     58     CCR-58SX0C-D     100     CCR-58SX00-DM       17     CCR-58SX90-DM     59     CCR-58SX0C-DM     101     CCR-58SX00-DM       18     CCR-58SX90-M     60     CCR-58SX0C-TM     102     CCR-58SX00-MD       20     CCR-58SX90-T     61     CCR-58SX0C-TM     103     CCR-58SX00-MS       21     CCR-58SX90-TD     64     CCR-58SX0C-TD     106     CCR-58SX00-TD       22     CCR-58SX90-TDM     65     CCR-58SX0C-TDM     107	7	CCR-58SX9C-T	49	CCR-58SX90-T	91	CCR-58SX0C-T
10     CCR-58SX9C-TDMS     52     CCR-58SX90-TDMS     94     CCR-58SX0C-TDMS       11     CCR-58SX9C-TDS     53     CCR-58SX90-TDS     95     CCR-58SX0C-TDS       12     CCR-58SX9C-TM     54     CCR-58SX90-TM     96     CCR-58SX0C-TMS       13     CCR-58SX9C-TM     55     CCR-58SX90-TMS     97     CCR-58SX0C-TMS       14     CCR-58SX9C-TS     56     CCR-58SX0C-D     98     CCR-58SX0C-TS       15     CCR-58SX90-D     58     CCR-58SX0C-D     100     CCR-58SX00-DM       17     CCR-58SX90-DM     59     CCR-58SX0C-DM     101     CCR-58SX00-DM       18     CCR-58SX90-M     60     CCR-58SX0C-M     102     CCR-58SX00-M       19     CCR-58SX90-M     61     CCR-58SX0C-TM     105     CCR-58SX00-M       19     CCR-58SX90-T     63     CCR-58SX0C-TM     102     CCR-58SX00-M       12     CCR-58SX90-TD     64     CCR-58SX0C-TD     106     CCR-58SX00-TD       12     CCR-58SX90-TDM     65     CCR-58SX0C-TDM     107 <t< th=""><th>8</th><th>CCR-58SX9C-TD</th><th>50</th><th>CCR-58SX90-TD</th><th>92</th><th>CCR-58SX0C-TD</th></t<>	8	CCR-58SX9C-TD	50	CCR-58SX90-TD	92	CCR-58SX0C-TD
11     CCR-58SX9C-TDS     53     CCR-58SX90-TDS     95     CCR-68SX0C-TDS       12     CCR-58SX9C-TM     54     CCR-58SX90-TM     96     CCR-58SX0C-TM       13     CCR-58SX9C-TMS     55     CCR-58SX90-TMS     97     CCR-58SX0C-TMS       14     CCR-58SX90-TS     56     CCR-58SX00-TS     98     CCR-58SX00-TS       15     CCR-58SX90-D     58     CCR-58SX0C-D     100     CCR-58SX00-D       17     CCR-58SX90-DM     59     CCR-58SX0C-DM     101     CCR-58SX00-DM       18     CCR-58SX90-M     60     CCR-58SX0C-M     102     CCR-58SX00-M       19     CCR-58SX90-M     61     CCR-58SX0C-M     102     CCR-58SX00-M       20     CCR-58SX90-T     63     CCR-58SX0C-T     105     CCR-58SX00-TD       21     CCR-58SX90-TD     64     CCR-58SX0C-TD     106     CCR-58SX00-TD       22     CCR-58SX90-TDM     65     CCR-58SX0C-TD     106     CCR-58SX00-TD       23     CCR-58SX90-TDM     66     CCR-58SX0C-TD     108     CCR-	9	CCR-58SX9C-TDM	51	CCR-58SX90-TDM	93	CCR-58SX0C-TDM
12     CCR-58SX9C-TM     54     CCR-58SX90-TM     96     CCR-58SX0C-TM       13     CCR-58SX9C-TMS     55     CCR-58SX90-TMS     97     CCR-58SX0C-TMS       14     CCR-58SX9C-TS     56     CCR-58SX0C-TS     98     CCR-58SX0C-TS       15     CCR-58SX90     57     CCR-58SX0C-D     100     CCR-58SX00-D       16     CCR-58SX90-D     58     CCR-58SX0C-D     100     CCR-58SX00-D       17     CCR-58SX90-DM     59     CCR-58SX0C-M     102     CCR-58SX00-M       18     CCR-58SX90-M     60     CCR-58SX0C-M     102     CCR-58SX0-M       19     CCR-58SX90-M     61     CCR-58SX0C-T     105     CCR-58SX0-M       20     CCR-58SX90-T     63     CCR-58SX0C-T     105     CCR-58SX0-TD       21     CCR-58SX90-TD     64     CCR-58SX0C-TD     106     CCR-58SX0-TD       23     CCR-58SX90-TDS     67     CCR-58SX0C-TD     106     CCR-58SX0-TD       24     CCR-58SX90-TDS     67     CCR-58SX0C-TDS     109     CCR-58SX0-TD	10	CCR-58SX9C-TDMS	52	CCR-58SX90-TDMS	94	CCR-58SX0C-TDMS
13     CCR-58SX9C-TMS     55     CCR-58SX90-TMS     97     CCR-58SX0C-TMS       14     CCR-58SX9C-TS     56     CCR-58SX90-TS     98     CCR-58SX0C-TS       15     CCR-58SX90     57     CCR-58SX0C-D     100     CCR-58SX00-D       16     CCR-58SX90-D     58     CCR-58SX0C-D     100     CCR-58SX00-D       17     CCR-58SX90-DM     59     CCR-58SX0C-M     102     CCR-58SX00-M       18     CCR-58SX90-M     60     CCR-58SX0C-M     102     CCR-58SX00-M       19     CCR-58SX90-MS     61     CCR-58SX0C-S     104     CCR-58SX00-T       20     CCR-58SX90-TD     63     CCR-58SX0C-TD     106     CCR-58SX00-T       21     CCR-58SX90-TD     64     CCR-58SX0C-TD     106     CCR-58SX0-TD       23     CCR-58SX90-TDM     65     CCR-58SX0C-TDM     107     CCR-58SX0-TDMS       24     CCR-58SX90-TDM     66     CCR-58SX0C-TMS     110     CCR-58SX00-TMS       25     CCR-58SX90-TM     68     CCR-58SX0C-TMS     111     CCR-58	11	CCR-58SX9C-TDS	53	CCR-58SX90-TDS	95	CCR-58SX0C-TDS
14     CCR-58SX9C-TS     56     CCR-58SX90-TS     98     CCR-58SX00       15     CCR-58SX90     57     CCR-58SX0C-D     100     CCR-58SX00-D       16     CCR-58SX90-DM     59     CCR-58SX0C-D     100     CCR-58SX00-DM       17     CCR-58SX90-DM     59     CCR-58SX0C-DM     101     CCR-58SX00-DM       18     CCR-58SX90-MS     61     CCR-58SX0C-M     102     CCR-58SX00-M       19     CCR-58SX90-S     62     CCR-58SX0C-S     104     CCR-58SX00-S       20     CCR-58SX90-T     63     CCR-58SX0C-T     105     CCR-58SX00-T       21     CCR-58SX90-TD     64     CCR-58SX0C-TD     106     CCR-58SX00-TD       23     CCR-58SX90-TDM     65     CCR-58SX0C-TDM     107     CCR-58SX00-TDM       24     CCR-58SX90-TDM     66     CCR-58SX0C-TM     108     CCR-58SX00-TM       25     CCR-58SX90-TM     68     CCR-58SX0C-TM     110     CCR-58SX00-TM       26     CCR-58SX90-TM     69     CCR-58SX00-TM     111     CCR-58SX00-	12	CCR-58SX9C-TM	54	CCR-58SX90-TM	96	CCR-58SX0C-TM
15     CCR-58SX90     57     CCR-58SX0C     99     CCR-58SX00       16     CCR-58SX90-D     58     CCR-58SX0C-D     100     CCR-58SX00-D       17     CCR-58SX90-DM     59     CCR-58SX0C-DM     101     CCR-58SX00-DM       18     CCR-58SX90-M     60     CCR-58SX0C-M     102     CCR-58SX00-M       19     CCR-58SX90-MS     61     CCR-58SX0C-MS     103     CCR-58SX00-S       20     CCR-58SX90-T     63     CCR-58SX0C-T     105     CCR-58SX00-T       21     CCR-58SX90-TD     64     CCR-58SX0C-TD     106     CCR-58SX00-TD       23     CCR-58SX90-TDM     65     CCR-58SX0C-TD     106     CCR-58SX00-TDMS       24     CCR-58SX90-TDM     66     CCR-58SX0C-TD     109     CCR-58SX00-TDMS       25     CCR-58SX90-TM     68     CCR-58SX0C-TS     110     CCR-58SX00-TMS       26     CCR-58SX90-TM     69     CCR-58SX0C-TS     112     CCR-58SX0-TMS       27     CCR-58SX9C-D     72     CCR-58SX00-D     112     CCR-58SX0-TS	13	CCR-58SX9C-TMS	55	CCR-58SX90-TMS	97	CCR-58SX0C-TMS
16     CCR-58SX90-D     58     CCR-58SX0C-D     100     CCR-58SX00-D       17     CCR-58SX90-DM     59     CCR-58SX0C-DM     101     CCR-58SX00-DM       18     CCR-58SX90-M     60     CCR-58SX0C-M     102     CCR-58SX00-M       19     CCR-58SX90-MS     61     CCR-58SX0C-MS     103     CCR-58SX00-MS       20     CCR-58SX90-T     63     CCR-58SX0C-T     105     CCR-58SX00-TD       21     CCR-58SX90-TD     64     CCR-58SX0C-TD     106     CCR-58SX00-TD       23     CCR-58SX90-TDM     65     CCR-58SX0C-TDM     107     CCR-58SX00-TDM       24     CCR-58SX90-TDM     66     CCR-58SX0C-TD     108     CCR-58SX00-TDM       25     CCR-58SX90-TM     68     CCR-58SX0C-TM     110     CCR-58SX00-TM       26     CCR-58SX90-TM     69     CCR-58SX0C-TM     110     CCR-58SX00-TM       27     CCR-58SX9C-D     72     CCR-58SX00-TM     111     CCR-58SX0-TM       28     CCR-58SX9C-TM     74     CCR-58SX00-D     112     CCR	14	CCR-58SX9C-TS	56	CCR-58SX90-TS	98	CCR-58SX0C-TS
17   CCR-58SX90-DM   59   CCR-58SX0C-DM   101   CCR-58SX00-DM     18   CCR-58SX90-M   60   CCR-58SX0C-M   102   CCR-58SX00-M     19   CCR-58SX90-MS   61   CCR-58SX0C-MS   103   CCR-58SX00-MS     20   CCR-58SX90-S   62   CCR-58SX0C-S   104   CCR-58SX00-S     21   CCR-58SX90-T   63   CCR-58SX0C-T   105   CCR-58SX00-T     22   CCR-58SX90-TD   64   CCR-58SX0C-TD   106   CCR-58SX00-TD     23   CCR-58SX90-TDM   65   CCR-58SX0C-TDM   107   CCR-58SX00-TDMS     24   CCR-58SX90-TDMS   66   CCR-58SX0C-TDM   108   CCR-58SX00-TDMS     25   CCR-58SX90-TM   68   CCR-58SX0C-TM   110   CCR-58SX00-TMS     25   CCR-58SX90-TM   68   CCR-58SX0C-TM   110   CCR-58SX00-TMS     26   CCR-58SX90-TM   68   CCR-58SX0C-TM   111   CCR-58SX00-TMS     28   CCR-58SX9C-D   72   CCR-58SX00-TM   112   CCR-58SX00-TS     30   CCR-58SX9C-M   74   CCR-58SX00-TM <th>15</th> <th>CCR-58SX90</th> <th>57</th> <th>CCR-58SX0C</th> <th>99</th> <th>CCR-58SX00</th>	15	CCR-58SX90	57	CCR-58SX0C	99	CCR-58SX00
18     CCR-58SX90-M     60     CCR-58SX0C-M     102     CCR-58SX00-M       19     CCR-58SX90-MS     61     CCR-58SX0C-MS     103     CCR-58SX00-MS       20     CCR-58SX90-S     62     CCR-58SX0C-S     104     CCR-58SX00-S       21     CCR-58SX90-T     63     CCR-58SX0C-T     105     CCR-58SX00-T       22     CCR-58SX90-TD     64     CCR-58SX0C-TD     106     CCR-58SX00-TDM       23     CCR-58SX90-TDM     65     CCR-58SX0C-TDM     107     CCR-58SX00-TDM       24     CCR-58SX90-TDM     66     CCR-58SX0C-TDM     108     CCR-58SX00-TDMS       25     CCR-58SX90-TDM     67     CCR-58SX0C-TM     110     CCR-58SX00-TDMS       26     CCR-58SX90-TM     68     CCR-58SX0C-TM     111     CCR-58SX00-TMS       28     CCR-58SX9C     71     CCR-58SX00-TM     112     CCR-58SX00-TS       30     CCR-58SX9C-M     74     CCR-58SX00-M     133     CCR-58SX9C-T     77     CCR-58SX00-TD       34     CCR-58SX9C-TD     78     C	16	CCR-58SX90-D	58	CCR-58SX0C-D	100	CCR-58SX00-D
19     CCR-58SX90-MS     61     CCR-58SX0C-MS     103     CCR-58SX00-MS       20     CCR-58SX90-S     62     CCR-58SX0C-S     104     CCR-58SX00-S       21     CCR-58SX90-T     63     CCR-58SX0C-T     105     CCR-58SX00-T       22     CCR-58SX90-TD     64     CCR-58SX0C-TD     106     CCR-58SX00-TD       23     CCR-58SX90-TDM     65     CCR-58SX0C-TDM     107     CCR-58SX00-TDM       24     CCR-58SX90-TDM     66     CCR-58SX0C-TDM     108     CCR-58SX00-TDMS       25     CCR-58SX90-TDM     67     CCR-58SX0C-TM     100     CCR-58SX00-TDMS       26     CCR-58SX90-TM     68     CCR-58SX0C-TM     110     CCR-58SX00-TMS       27     CCR-58SX90-TM     69     CCR-58SX00-TMS     111     CCR-58SX00-TMS       28     CCR-58SX9C-D     72     CCR-58SX00-TS     112     CCR-58SX00-TS       30     CCR-58SX9C-D     73     CCR-58SX00-D     33     CCR-58SX9C-T     77     CCR-58SX00-TD       34     CCR-58SX9C-TD     78	17	CCR-58SX90-DM	59	CCR-58SX0C-DM	101	CCR-58SX00-DM
20     CCR-58SX90-S     62     CCR-58SX0C-S     104     CCR-58SX00-S       21     CCR-58SX90-T     63     CCR-58SX0C-T     105     CCR-58SX00-T       22     CCR-58SX90-TD     64     CCR-58SX0C-TD     106     CCR-58SX00-TD       23     CCR-58SX90-TDM     65     CCR-58SX0C-TDM     107     CCR-58SX00-TDM       24     CCR-58SX90-TDMS     66     CCR-58SX0C-TDMS     108     CCR-58SX00-TDMS       25     CCR-58SX90-TDS     67     CCR-58SX0C-TDS     109     CCR-58SX00-TDM       26     CCR-58SX90-TM     68     CCR-58SX0C-TMS     111     CCR-58SX00-TMS       28     CCR-58SX90-TMS     69     CCR-58SX0C-TS     112     CCR-58SX00-TMS       29     CCR-58SX9C-D     72     CCR-58SX00-D     112     CCR-58SX00-TS       30     CCR-58SX9C-M     74     CCR-58SX00-D     112     CCR-58SX00-TS       34     CCR-58SX9C-TD     78     CCR-58SX00-TD     13     CCR-58SX9C-TD     78     CCR-58SX00-TD       37     CCR-58SX9C-TD     78	18	CCR-58SX90-M	60	CCR-58SX0C-M	102	CCR-58SX00-M
21   CCR-58SX90-T   63   CCR-58SX0C-T   105   CCR-58SX00-T     22   CCR-58SX90-TD   64   CCR-58SX0C-TD   106   CCR-58SX00-TD     23   CCR-58SX90-TDM   65   CCR-58SX0C-TDM   107   CCR-58SX00-TDM     24   CCR-58SX90-TDMS   66   CCR-58SX0C-TDMS   108   CCR-58SX00-TDMS     25   CCR-58SX90-TDS   67   CCR-58SX0C-TDS   109   CCR-58SX00-TDS     26   CCR-58SX90-TM   68   CCR-58SX0C-TM   110   CCR-58SX00-TMS     27   CCR-58SX90-TMS   69   CCR-58SX0C-TMS   111   CCR-58SX00-TMS     28   CCR-58SX90-TS   70   CCR-58SX00-TS   112   CCR-58SX00-TS     29   CCR-58SX9C-D   72   CCR-58SX00-D   31   CCR-58SX9C-M   74   CCR-58SX00-D     31   CCR-58SX9C-M   74   CCR-58SX00-TD   33   CCR-58SX9C-TD   78   CCR-58SX00-TD     34   CCR-58SX9C-TD   78   CCR-58SX00-TD   33   CCR-58SX9C-TD   78   CCR-58SX00-TD     38   CCR-58SX9C-TD   78   CCR-58SX00-TD   33 </th <th>19</th> <th>CCR-58SX90-MS</th> <th>61</th> <th>CCR-58SX0C-MS</th> <th>103</th> <th>CCR-58SX00-MS</th>	19	CCR-58SX90-MS	61	CCR-58SX0C-MS	103	CCR-58SX00-MS
22     CCR-58SX90-TD     64     CCR-58SX0C-TD     106     CCR-58SX00-TD       23     CCR-58SX90-TDM     65     CCR-58SX0C-TDM     107     CCR-58SX00-TDM       24     CCR-58SX90-TDMS     66     CCR-58SX0C-TDMS     108     CCR-58SX00-TDMS       25     CCR-58SX90-TDS     67     CCR-58SX0C-TDS     109     CCR-58SX00-TDS       26     CCR-58SX90-TMS     69     CCR-58SX0C-TMS     110     CCR-58SX00-TMS       28     CCR-58SX90-TMS     69     CCR-58SX0C-TMS     111     CCR-58SX00-TMS       29     CCR-58SX9C     71     CCR-58SX00-TS     112     CCR-58SX00-TS       30     CCR-58SX9C-D     72     CCR-58SX00-D     111     CCR-58SX00-TS       31     CCR-58SX9C-M     74     CCR-58SX00-D     112     CCR-58SX00-TS       34     CCR-58SX9C-TD     78     CCR-58SX00-TD     13     CCR-58SX9C-TD     78     CCR-58SX00-TD       35     CCR-58SX9C-TD     79     CCR-58SX00-TD     13     CCR-58SX9C-TD     14     CCR-58SX9C-TM     82     CCR-58SX	20	CCR-58SX90-S	62	CCR-58SX0C-S	104	CCR-58SX00-S
23     CCR-588X90-TDM     65     CCR-58SX0C-TDM     107     CCR-58SX00-TDM       24     CCR-588X90-TDMS     66     CCR-58SX0C-TDMS     108     CCR-58SX00-TDMS       25     CCR-58SX90-TDS     67     CCR-58SX0C-TDS     109     CCR-58SX00-TDS       26     CCR-58SX90-TM     68     CCR-58SX0C-TM     110     CCR-58SX00-TM       27     CCR-58SX90-TMS     69     CCR-58SX0C-TS     111     CCR-58SX00-TMS       28     CCR-58SX90-TS     70     CCR-58SX0C-TS     112     CCR-58SX00-TMS       29     CCR-58SX9C-D     72     CCR-58SX00-D     30     CCR-58SX9C-D     72     CCR-58SX00-D       30     CCR-58SX9C-M     74     CCR-58SX00-D     31     CCR-58SX9C-M     74     CCR-58SX00-M       34     CCR-58SX9C-T     77     CCR-58SX00-TD     36     CCR-58SX9C-TD     78     CCR-58SX00-TD       35     CCR-58SX9C-TD     78     CCR-58SX00-TD     38     CCR-58SX9C-TD     39     CCR-58SX9C-TD     79     CCR-58SX00-TD       39     CCR-58SX9C-TDM </th <th>21</th> <th>CCR-58SX90-T</th> <th>63</th> <th>CCR-58SX0C-T</th> <th>105</th> <th>CCR-58SX00-T</th>	21	CCR-58SX90-T	63	CCR-58SX0C-T	105	CCR-58SX00-T
24     CCR-58SX90-TDMS     66     CCR-58SX0C-TDMS     108     CCR-58SX00-TDMS       25     CCR-58SX90-TDS     67     CCR-58SX0C-TDS     109     CCR-58SX00-TDS       26     CCR-58SX90-TM     68     CCR-58SX0C-TM     110     CCR-58SX00-TMS       27     CCR-58SX90-TMS     69     CCR-58SX0C-TMS     111     CCR-58SX00-TMS       28     CCR-58SX90-TS     70     CCR-58SX0C-TS     112     CCR-58SX00-TMS       29     CCR-58SX9C     71     CCR-58SX00-D     72     CCR-58SX00-D       30     CCR-58SX9C-D     72     CCR-58SX00-D     73     CCR-58SX00-D       31     CCR-58SX9C-M     74     CCR-58SX00-M     74     CCR-58SX00-M       32     CCR-58SX9C-MS     75     CCR-58SX00-M     74     CCR-58SX00-M       33     CCR-58SX9C-T     77     CCR-58SX00-T     76     CCR-58SX00-T       34     CCR-58SX9C-TD     78     CCR-58SX00-TD     78     CCR-58SX00-TD       37     CCR-58SX9C-TDM     79     CCR-58SX00-TDM     79     CCR-	22	CCR-58SX90-TD	64	CCR-58SX0C-TD	106	CCR-58SX00-TD
25     CCR-58SX90-TDS     67     CCR-58SX0C-TDS     109     CCR-58SX00-TDS     26       26     CCR-58SX90-TM     68     CCR-58SX0C-TM     110     CCR-58SX00-TMS     27       27     CCR-58SX90-TMS     69     CCR-58SX0C-TMS     111     CCR-58SX00-TMS       28     CCR-58SX90-TS     70     CCR-58SX0C-TS     112     CCR-58SX00-TS       29     CCR-58SX9C-D     72     CCR-58SX00-D     30     CCR-58SX9C-D     72     CCR-58SX00-D       30     CCR-58SX9C-D     72     CCR-58SX00-D     31     CCR-58SX9C-M     74     CCR-58SX00-DM       31     CCR-58SX9C-M     74     CCR-58SX00-S     35     CCR-58SX9C-S     76     CCR-58SX00-S       34     CCR-58SX9C-T     77     CCR-58SX00-TD     36     CCR-58SX9C-TD     78     CCR-58SX00-TDM       37     CCR-58SX9C-TDM     79     CCR-58SX00-TDMS     39     CCR-58SX9C-TM     82     CCR-58SX00-TMS     40     CCR-58SX9C-TM     82     CCR-58SX00-TMS     41     CCR-58SX9C-TMS     83     CCR-58SX00-TMS	23	CCR-58SX90-TDM	65	CCR-58SX0C-TDM	107	CCR-58SX00-TDM
26     CCR-58SX90-TM     68     CCR-58SX0C-TM     110     CCR-58SX00-TM       27     CCR-58SX90-TMS     69     CCR-58SX0C-TMS     111     CCR-58SX00-TMS       28     CCR-58SX90-TS     70     CCR-58SX0C-TS     112     CCR-58SX00-TS       29     CCR-58SX9C     71     CCR-58SX00     112     CCR-58SX00-TS       30     CCR-58SX9C-D     72     CCR-58SX00-D     112     CCR-58SX00-TS       31     CCR-58SX9C-DM     74     CCR-58SX00-DM     113     CCR-58SX9C-MS     114     CCR-58SX00-M       32     CCR-58SX9C-MS     75     CCR-58SX00-M     114     CCR-58SX00-M       33     CCR-58SX9C-S     76     CCR-58SX00-M     115     115     116     117     1111     1111     111	24	CCR-58SX90-TDMS	66	CCR-58SX0C-TDMS	108	CCR-58SX00-TDMS
27   CCR-588X90-TMS   69   CCR-588X0C-TMS   111   CCR-588X00-TMS     28   CCR-588X90-TS   70   CCR-588X0C-TS   112   CCR-588X00-TS     29   CCR-588X9C   71   CCR-588X00-D   30   CCR-588X9C-D   72   CCR-588X00-D     31   CCR-588X9C-DM   73   CCR-588X00-DM   33   CCR-588X9C-M   74   CCR-588X00-M     32   CCR-588X9C-MS   75   CCR-588X00-M   34   CCR-588X9C-S   76   CCR-588X00-S     34   CCR-588X9C-TD   78   CCR-588X00-TD   36   CCR-588X9C-TD   78   CCR-588X00-TD     37   CCR-588X9C-TD   78   CCR-588X00-TDM   38   CCR-588X9C-TDM   79   CCR-588X00-TDM     38   CCR-588X9C-TDM   79   CCR-588X00-TDM   39   CCR-588X9C-TDS   81   CCR-588X00-TDMS     39   CCR-588X9C-TM   82   CCR-588X00-TMS   41   CCR-588X9C-TMS   83   CCR-588X00-TMS	25	CCR-58SX90-TDS	67	CCR-58SX0C-TDS	109	CCR-58SX00-TDS
28     CCR-58SX90-TS     70     CCR-58SX0C-TS     112     CCR-58SX00-TS       29     CCR-58SX9C     71     CCR-58SX00     30     CCR-58SX9C-D     72     CCR-58SX00-D       30     CCR-58SX9C-DM     73     CCR-58SX00-DM     31     CCR-58SX9C-M     74     CCR-58SX00-DM       31     CCR-58SX9C-M     74     CCR-58SX00-M     33     CCR-58SX9C-MS     75     CCR-58SX00-MS       34     CCR-58SX9C-S     76     CCR-58SX00-T     36     CCR-58SX9C-T     77     CCR-58SX00-TD       36     CCR-58SX9C-TD     78     CCR-58SX00-TD     37     CCR-58SX00-TD       37     CCR-58SX9C-TDM     79     CCR-58SX00-TDM     38     CCR-58SX9C-TDM     80     CCR-58SX00-TDM       39     CCR-58SX9C-TDS     81     CCR-58SX00-TDS     40     CCR-58SX9C-TM     82     CCR-58SX00-TM       41     CCR-58SX9C-TMS     83     CCR-58SX00-TMS     33     CCR-58SX00-TMS	26	CCR-58SX90-TM	68	CCR-58SX0C-TM	110	CCR-58SX00-TM
29   CCR-588X9C   71   CCR-588X00     30   CCR-588X9C-D   72   CCR-588X00-D     31   CCR-588X9C-DM   73   CCR-588X00-DM     32   CCR-588X9C-M   74   CCR-588X00-M     33   CCR-588X9C-MS   75   CCR-588X00-MS     34   CCR-588X9C-S   76   CCR-588X00-T     35   CCR-588X9C-T   77   CCR-588X00-T     36   CCR-588X9C-TD   78   CCR-588X00-TD     37   CCR-588X9C-TDM   79   CCR-588X00-TDM     38   CCR-588X9C-TDMS   80   CCR-588X00-TDMS     39   CCR-588X9C-TDS   81   CCR-588X00-TDS     40   CCR-588X9C-TM   82   CCR-588X00-TMS     41   CCR-588X9C-TMS   83   CCR-588X00-TMS	27	CCR-58SX90-TMS	69	CCR-58SX0C-TMS	111	CCR-58SX00-TMS
30   CCR-58SX9C-D   72   CCR-58SX00-D     31   CCR-58SX9C-DM   73   CCR-58SX00-DM     32   CCR-58SX9C-M   74   CCR-58SX00-M     33   CCR-58SX9C-MS   75   CCR-58SX00-MS     34   CCR-58SX9C-S   76   CCR-58SX00-S     35   CCR-58SX9C-T   77   CCR-58SX00-T     36   CCR-58SX9C-TD   78   CCR-58SX00-TD     37   CCR-58SX9C-TDM   79   CCR-58SX00-TDM     38   CCR-58SX9C-TDMS   80   CCR-58SX00-TDMS     39   CCR-58SX9C-TDS   81   CCR-58SX00-TDS     40   CCR-58SX9C-TM   82   CCR-58SX00-TMS     41   CCR-58SX9C-TMS   83   CCR-58SX00-TMS	28	CCR-58SX90-TS	70	CCR-58SX0C-TS	112	CCR-58SX00-TS
31   CCR-58SX9C-DM   73   CCR-58SX00-DM     32   CCR-58SX9C-M   74   CCR-58SX00-M     33   CCR-58SX9C-MS   75   CCR-58SX00-MS     34   CCR-58SX9C-S   76   CCR-58SX00-S     35   CCR-58SX9C-TD   77   CCR-58SX00-T     36   CCR-58SX9C-TD   78   CCR-58SX00-TD     37   CCR-58SX9C-TDM   79   CCR-58SX00-TDM     38   CCR-58SX9C-TDMS   80   CCR-58SX00-TDMS     39   CCR-58SX9C-TDS   81   CCR-58SX00-TDS     40   CCR-58SX9C-TM   82   CCR-58SX00-TMS     41   CCR-58SX9C-TMS   83   CCR-58SX00-TMS	29	CCR-58SX9C	71	CCR-58SX00		
32   CCR-58SX9C-M   74   CCR-58SX00-M     33   CCR-58SX9C-MS   75   CCR-58SX00-MS     34   CCR-58SX9C-S   76   CCR-58SX00-S     35   CCR-58SX9C-T   77   CCR-58SX00-T     36   CCR-58SX9C-TD   78   CCR-58SX00-TD     37   CCR-58SX9C-TDM   79   CCR-58SX00-TDM     38   CCR-58SX9C-TDMS   80   CCR-58SX00-TDMS     39   CCR-58SX9C-TDS   81   CCR-58SX00-TDS     40   CCR-58SX9C-TM   82   CCR-58SX00-TMS     41   CCR-58SX9C-TMS   83   CCR-58SX00-TMS	30	CCR-58SX9C-D	72	CCR-58SX00-D		
33   CCR-58SX9C-MS   75   CCR-58SX00-MS     34   CCR-58SX9C-S   76   CCR-58SX00-S     35   CCR-58SX9C-T   77   CCR-58SX00-T     36   CCR-58SX9C-TD   78   CCR-58SX00-TD     37   CCR-58SX9C-TDM   79   CCR-58SX00-TDM     38   CCR-58SX9C-TDMS   80   CCR-58SX00-TDMS     39   CCR-58SX9C-TDS   81   CCR-58SX00-TDS     40   CCR-58SX9C-TM   82   CCR-58SX00-TM     41   CCR-58SX9C-TMS   83   CCR-58SX00-TMS	31	CCR-58SX9C-DM	73	CCR-58SX00-DM		
34   CCR-58SX9C-S   76   CCR-58SX00-S     35   CCR-58SX9C-T   77   CCR-58SX00-T     36   CCR-58SX9C-TD   78   CCR-58SX00-TD     37   CCR-58SX9C-TDM   79   CCR-58SX00-TDM     38   CCR-58SX9C-TDMS   80   CCR-58SX00-TDMS     39   CCR-58SX9C-TDS   81   CCR-58SX00-TDS     40   CCR-58SX9C-TM   82   CCR-58SX00-TM     41   CCR-58SX9C-TMS   83   CCR-58SX00-TMS	32	CCR-58SX9C-M	74	CCR-58SX00-M		
35   CCR-58SX9C-T   77   CCR-58SX00-T     36   CCR-58SX9C-TD   78   CCR-58SX00-TD     37   CCR-58SX9C-TDM   79   CCR-58SX00-TDM     38   CCR-58SX9C-TDMS   80   CCR-58SX00-TDMS     39   CCR-58SX9C-TDS   81   CCR-58SX00-TDS     40   CCR-58SX9C-TM   82   CCR-58SX00-TM     41   CCR-58SX9C-TMS   83   CCR-58SX00-TMS	33	CCR-58SX9C-MS	75	CCR-58SX00-MS		
36     CCR-58SX9C-TD     78     CCR-58SX00-TD       37     CCR-58SX9C-TDM     79     CCR-58SX00-TDM       38     CCR-58SX9C-TDMS     80     CCR-58SX00-TDMS       39     CCR-58SX9C-TDS     81     CCR-58SX00-TDS       40     CCR-58SX9C-TM     82     CCR-58SX00-TM       41     CCR-58SX9C-TMS     83     CCR-58SX00-TMS	34	CCR-58SX9C-S	76	CCR-58SX00-S		
37     CCR-58SX9C-TDM     79     CCR-58SX00-TDM       38     CCR-58SX9C-TDMS     80     CCR-58SX00-TDMS       39     CCR-58SX9C-TDS     81     CCR-58SX00-TDS       40     CCR-58SX9C-TM     82     CCR-58SX00-TM       41     CCR-58SX9C-TMS     83     CCR-58SX00-TMS	35	CCR-58SX9C-T	77	CCR-58SX00-T		
38     CCR-58SX9C-TDMS     80     CCR-58SX00-TDMS       39     CCR-58SX9C-TDS     81     CCR-58SX00-TDS       40     CCR-58SX9C-TM     82     CCR-58SX00-TM       41     CCR-58SX9C-TMS     83     CCR-58SX00-TMS	36	CCR-58SX9C-TD	78	CCR-58SX00-TD		
39     CCR-58SX9C-TDS     81     CCR-58SX00-TDS       40     CCR-58SX9C-TM     82     CCR-58SX00-TM       41     CCR-58SX9C-TMS     83     CCR-58SX00-TMS	37	CCR-58SX9C-TDM	79	CCR-58SX00-TDM		
40     CCR-58SX9C-TM     82     CCR-58SX00-TM       41     CCR-58SX9C-TMS     83     CCR-58SX00-TMS	38	CCR-58SX9C-TDMS	80	CCR-58SX00-TDMS		
41 CCR-58SX9C-TMS 83 CCR-58SX00-TMS	39	CCR-58SX9C-TDS	81	CCR-58SX00-TDS		
	40	CCR-58SX9C-TM	82	CCR-58SX00-TM		
42 CCR-58SX9C-TS 84 CCR-58SX00-TS	41	CCR-58SX9C-TMS	83	CCR-58SX00-TMS		
	42	CCR-58SX9C-TS	84	CCR-58SX00-TS		

\* X = 1 (28Vdc), 2 (15Vdc), 3 (12Vdc) and 4 (24Vdc)