



SMD POWER INDUCTORS

HCDS SERIES

FEATURES

- * RoHS compliant
- * Magnetic shielded surface mount inductor with high current rating low DC resistance
- * Ideal for DC – DC converter inductor applications
- * Packed in embossed carrier tape and can be used by automatic mounting machine.



特性

- *无铅.
- *具有磁屏蔽,低阻抗,大电流通过之特性.
- *DC-DC转换应用中理想的选择.
- *卷轴,编带包装,适用于表面贴装设备.

ORDERING CODE(标志示例)

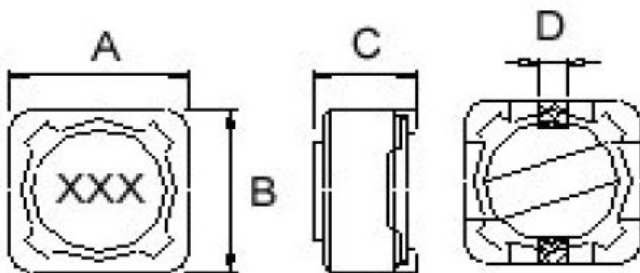
HCDS	74	100	M
(1)	(2)	(3)	(4)

- (1) Type 型号
- (2) Dimensions 尺寸
- (3) Inductance 电感量
- (4) Inductance Tolerance 电感量公差

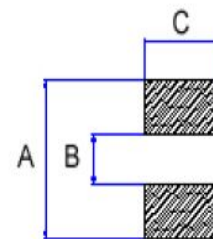
J : ±5% K : ±10% L : ±15%
 M : ±20% Y : ±25% T : ±30%

HCDS73&74

Shape and Dimensions



Recommended Pattern



Dimensions in mm

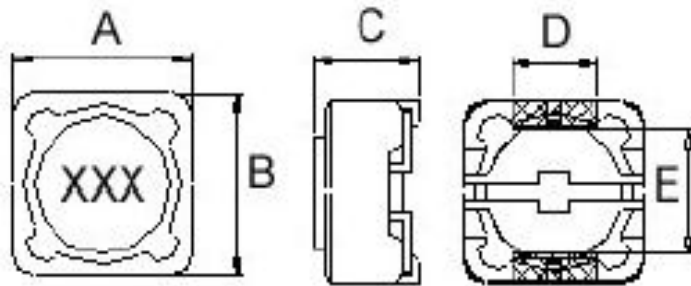
TYPE	A	B	C	D
HCDS73	7.3±0.2	7.3±0.2	3.4 ⁺⁰	1.8
HCDS74	7.3±0.2	7.3±0.2	4.5 ⁺⁰	1.8

TYPE	A	B	C
HCDS73	8.4	4.4	2.2
HCDS74	8.4	4.4	2.2

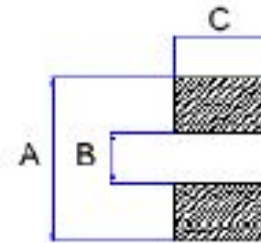


SMD POWER INDUCTORS

HCDS124&125&127&129 Shape and Dimensions



Recommended Pattern



Dimensions in m m

TYPE	A	B	C	D	E	F	A	B	C
HCDS124	12.5 ⁺⁰	12.5 ⁺⁰	4.5 ⁺⁰	1.2	5	7.6	13.0	7.0	5.4
HCDS125	12.5 ⁺⁰	12.5 ⁺⁰	6.0 ⁺⁰	1.2	5	7.6	13.0	7.0	5.4
HCDS127	12.5 ⁺⁰	12.5 ⁺⁰	8.0 ⁺⁰	1.2	5	7.6	13.0	7.0	5.4
HCDS129	12.5 ⁺⁰	12.5 ⁺⁰	10.0 ⁺⁰	1.2	5	7.6	13.0	7.0	5.4



SMD POWER INDUCTORS

HCDS 73 series Standard Specifications

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance	Marking
HCDS73T-1R5□	1.5	1 kHz, 1 V	0.03	4	M	1R5
HCDS73T-2R2□	2.2	1 kHz, 1 V	0.03	4	M	2R2
HCDS73T-3R3□	3.3	1 kHz, 1 V	0.04	3.7	M	3R3
HCDS73T-6R8□	6.8	1 kHz, 1 V	0.06	2	M	6R8
HCDS73T-100□	10	1 kHz, 1 V	0.072	1.68	M	100
HCDS73T-120□	12	1 kHz, 1 V	0.098	1.52	M	120
HCDS73T-150□	15	1 kHz, 1 V	0.13	1.33	M	150
HCDS73T-180□	18	1 kHz, 1 V	0.14	1.2	M	180
HCDS73T-220□	22	1 kHz, 1 V	0.19	1.07	M	220
HCDS73T-270□	27	1 kHz, 1 V	0.21	0.96	M	270
HCDS73T-330□	33	1 kHz, 1 V	0.24	0.91	M	330
HCDS73T-390□	39	1 kHz, 1 V	0.32	0.77	M	390
HCDS73T-470□	47	1 kHz, 1 V	0.36	0.76	M	470
HCDS73T-560□	56	1 kHz, 1 V	0.47	0.68	M	560
HCDS73T-680□	68	1 kHz, 1 V	0.52	0.61	M	680
HCDS73T-820□	82	1 kHz, 1 V	0.69	0.57	M	820
HCDS73T-101□	100	1 kHz, 1 V	0.79	0.5	M	101
HCDS73T-121□	120	1 kHz, 1 V	0.89	0.49	M	121
HCDS73T-151□	150	1 kHz, 1 V	1.27	0.43	M	151
HCDS73T-181□	180	1 kHz, 1 V	1.45	0.39	M	181
HCDS73T-221□	220	1 kHz, 1 V	1.65	0.35	M	221
HCDS73T-271□	270	1 kHz, 1 V	2.31	0.32	M	271
HCDS73T-331□	330	1 kHz, 1 V	2.62	0.28	M	331
HCDS73T-391□	390	1 kHz, 1 V	2.94	0.26	M	391
HCDS73T-471□	470	1 kHz, 1 V	4.18	0.24	M	471
HCDS73T-561□	560	1 kHz, 1 V	4.67	0.22	M	561
HCDS73T-681□	680	1 kHz, 1 V	5.73	0.19	M	681
HCDS73T-821□	820	1 kHz, 1 V	6.54	0.18	M	821
HCDS73T-102□	1000	1 kHz, 1 V	9.44	0.16	M	102

NOTE: □-tolerance M=±20%

1. Operating temperature range — 40 °C ~ 105 °C (Including self - temperature rise)

2. Isat for Inductance drop 35% from its value without current.

"-N" FOR COMPLETELY LEAD FREE TYPE (INCLUDING FERRITE BODY & SOLDER)



SMD POWER INDUCTORS

HCDS 74 series Standard Specifications

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance	Marking
HCDS74T-1R5□	1.5	1 kHz,1 V	0.02	5	M	1R5
HCDS74T-1R8□	1.8	1 kHz,1 V	0.025	4	M	1R8
HCDS74T-2R2□	2.2	1 kHz,1 V	0.025	3.5	M,T	2R2
HCDS74T-2R7□	2.7	1 kHz,1 V	0.03	3.5	M,T	2R7
HCDS74T-3R3□	3.3	1 kHz,1 V	0.035	3.5	M,T	3R3
HCDS74T-3R6□	3.6	1 kHz,1 V	0.035	3.2	M,T	3R6
HCDS74T-4R7□	4.7	1 kHz,1 V	0.035	3	M,T	4R7
HCDS74T-6R8□	6.8	1 kHz,1 V	0.045	2.5	M	6R8
HCDS74T-100□	10	1 kHz,1 V	0.049	1.84	M	100
HCDS74T-120□	12	1 kHz,1 V	0.058	1.71	M	120
HCDS74T-150□	15	1 kHz,1 V	0.081	1.47	M	150
HCDS74T-180□	18	1 kHz,1 V	0.091	1.31	M	180
HCDS74T-220□	22	1 kHz,1 V	0.11	1.23	M	220
HCDS74T-270□	27	1 kHz,1 V	0.15	1.12	M	270
HCDS74T-330□	33	1 kHz,1 V	0.17	0.96	M	330
HCDS74T-390□	39	1 kHz,1 V	0.23	0.91	M	390
HCDS74T-470□	47	1 kHz,1 V	0.26	0.88	M	470
HCDS74T-560□	56	1 kHz,1 V	0.35	0.75	M	560
HCDS74T-680□	68	1 kHz,1 V	0.38	0.69	M	680
HCDS74T-820□	82	1 kHz,1 V	0.43	0.61	M	820
HCDS74T-101□	100	1 kHz,1 V	0.61	0.6	M	101
HCDS74T-121□	120	1 kHz,1 V	0.66	0.52	M	121
HCDS74T-151□	150	1 kHz,1 V	0.88	0.46	M	151
HCDS74T-181□	180	1 kHz,1 V	0.98	0.42	M	181
HCDS74T-221□	220	1 kHz,1 V	1.17	0.36	K,M	221
HCDS74T-271□	270	1 kHz,1 V	1.64	0.34	K,M	271
HCDS74T-331□	330	1 kHz,1 V	1.86	0.32	K,M	331
HCDS74T-391□	390	1 kHz,1 V	2.85	0.29	K,M	391
HCDS74T-471□	470	1 kHz,1 V	3.01	0.26	K,M	471
HCDS74T-561□	560	1 kHz,1 V	3.62	0.23	K,M	561
HCDS74T-681□	680	1 kHz,1 V	4.63	0.22	K,M	681
HCDS74T-821□	820	1 kHz,1 V	5.2	0.2	K,M	821
HCDS74T-102□	1000	1 kHz,1 V	6	0.18	K,M	102

NOTE: □-tolerance K=±10% / M=±20% / T=±30%

1.Operating temperature range — 4 0 °C~ 1 0 5 °C(Including self - temperature rise)

2.Isat for Inductance drop 35% from its value without current.

"-N" FOR COMPLETELY LEAD FREE TYPE(INCLUDING FERRITE BODY & SOLDER)



SMD POWER INDUCTORS

HCDS 124 series Standard Specifications

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance	Marking
HCDS124T-3R3□	3.3	100 kHz, 1 V	0.015	6.5	M	3R3
HCDS124T-3R9□	3.9	100 kHz, 1 V	0.015	6.5	M	3R9
HCDS124T-4R7□	4.7	100 kHz, 1 V	0.018	5.7	M	4R7
HCDS124T-6R8□	6.8	100 kHz, 1 V	0.023	4.9	M	6R8
HCDS124T-100□	10	100 kHz, 1 V	0.028	4.5	M	100
HCDS124T-120□	12	100 kHz, 1 V	0.038	4	M	120
HCDS124T-150□	15	100 kHz, 1 V	0.05	3.2	M	150
HCDS124T-180□	18	100 kHz, 1 V	0.057	3.1	M	180
HCDS124T-220□	22	100 kHz, 1 V	0.066	2.9	M	220
HCDS124T-270□	27	100 kHz, 1 V	0.08	2.8	M	270
HCDS124T-330□	33	100 kHz, 1 V	0.097	2.7	M	330
HCDS124T-390□	39	100 kHz, 1 V	0.132	2.1	M	390
HCDS124T-470□	47	100 kHz, 1 V	0.15	1.9	M	470
HCDS124T-560□	56	100 kHz, 1 V	0.19	1.8	M	560
HCDS124T-680□	68	100 kHz, 1 V	0.22	1.5	M	680
HCDS124T-820□	82	100 kHz, 1 V	0.26	1.3	M	820
HCDS124T-101□	100	100 kHz, 1 V	0.308	1.2	M	101
HCDS124T-121□	120	100 kHz, 1 V	0.38	1.1	M	121
HCDS124T-151□	150	100 kHz, 1 V	0.53	0.95	M	151
HCDS124T-181□	180	100 kHz, 1 V	0.62	0.85	M	181
HCDS124T-221□	220	100 kHz, 1 V	0.7	0.8	M	221
HCDS124T-271□	270	100 kHz, 1 V	0.876	0.6	M	271
HCDS124T-331□	330	100 kHz, 1 V	0.99	0.5	M	331

NOTE: □-tolerance M=±20%

1. Operating temperature range - 40 °C ~ 105 °C (Including self - temperature rise)

2. Isat for Inductance drop 35% from its value without current.

"-N" FOR COMPLETELY LEAD FREE TYPE (INCLUDING FERRITE BODY & SOLDER)



SMD POWER INDUCTORS

HCDS 125 series Standard Specifications

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance	Marking
HCDS125T-3R3□	3.3	1 kHz,1 V	0.015	8	M	3R3
HCDS125T-4R7□	4.7	1 kHz,1 V	0.018	7.6	M	4R7
HCDS125T-6R4□	6.4	1 kHz,1 V	0.018	5.8	M	6R4
HCDS125T-8R2□	8.2	1 kHz,1 V	0.025	5	M	8R2
HCDS125T-100□	10	1 kHz,1 V	0.025	4	M	100
HCDS125T-120□	12	1 kHz,1 V	0.027	3.5	M	120
HCDS125T-150□	15	1 kHz,1 V	0.03	3.3	M	150
HCDS125T-180□	18	1 kHz,1 V	0.034	3	M	180
HCDS125T-220□	22	1 kHz,1 V	0.036	2.8	M	220
HCDS125T-270□	27	1 kHz,1 V	0.051	2.3	M	270
HCDS125T-330□	33	1 kHz,1 V	0.057	2.1	M	330
HCDS125T-390□	39	1 kHz,1 V	0.068	2	M	390
HCDS125T-470□	47	1 kHz,1 V	0.075	1.8	M	470
HCDS125T-560□	56	1 kHz,1 V	0.11	1.7	M	560
HCDS125T-680□	68	1 kHz,1 V	0.12	1.5	M	680
HCDS125T-820□	82	1 kHz,1 V	0.14	1.4	M	820
HCDS125T-101□	100	1 kHz,1 V	0.16	1.3	M	101
HCDS125T-121□	120	1 kHz,1 V	0.17	1.1	M	121
HCDS125T-151□	150	1 kHz,1 V	0.23	1	M	151
HCDS125T-181□	180	1 kHz,1 V	0.29	0.9	M	181
HCDS125T-221□	220	1 kHz,1 V	0.4	0.8	M	221
HCDS125T-271□	270	1 kHz,1 V	0.46	0.75	M	271
HCDS125T-331□	330	1 kHz,1 V	0.51	0.68	M	331
HCDS125T-391□	390	1 kHz,1 V	0.69	0.65	M	391
HCDS125T-471□	470	1 kHz,1 V	0.77	0.58	M	471
HCDS125T-561□	560	1 kHz,1 V	0.86	0.54	M	561
HCDS125T-681□	680	1 kHz,1 V	1.2	0.48	M	681
HCDS125T-821□	820	1 kHz,1 V	1.34	0.43	M	821
HCDS125T-102□	1000	1 kHz,1 V	1.53	0.4	M	102
HCDS125T-302□	3000	1 kHz,1 V	6	0.25	M	302

NOTE: □-tolerance M=±20%

1. Operating temperature range - 40 °C ~ 105 °C (Including self - temperature rise)

2. Isat for Inductance drop 35% from its value without current.

"-N" FOR COMPLETELY LEAD FREE TYPE (INCLUDING FERRITE BODY & SOLDER)



SMD POWER INDUCTORS

HCDS 127 series Standard Specifications

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance	Marking
HCDS127T-1R2□	1.2	100 kHz, 1 V	0.007	9.8	T	1R2
HCDS127T-1R5□	1.5	100 kHz, 1 V	0.008	9.5	T	1R5
HCDS127T-2R2□	2.2	100 kHz, 1 V	0.0115	8	M,T	2R2
HCDS127T-2R4□	2.4	100 kHz, 1 V	0.0115	8	M,T	2R4
HCDS127T-3R3□	3.3	100 kHz, 1 V	0.0135	7.5	T	3R3
HCDS127T-3R5□	3.5	100 kHz, 1 V	0.0135	7.5	M,T	3R5
HCDS127T-4R7□	4.7	100 kHz, 1 V	0.0158	6.8	M,T	4R7
HCDS127T-6R1□	6.1	100 kHz, 1 V	0.0176	6.6	M,T	6R1
HCDS127T-6R8□	6.8	100 kHz, 1 V	0.02	6.2	M,T	6R8
HCDS127T-7R6□	7.6	100 kHz, 1 V	0.02	5.9	M,T	7R6
HCDS127T-100□	10	1 kHz, 1 V	0.0216	5.4	M	100
HCDS127T-120□	12	1 kHz, 1 V	0.0243	4.9	M	120
HCDS127T-150□	15	1 kHz, 1 V	0.027	4.5	M	150
HCDS127T-180□	18	1 kHz, 1 V	0.0392	3.9	M	180
HCDS127T-220□	22	1 kHz, 1 V	0.0432	3.6	M	220
HCDS127T-270□	27	1 kHz, 1 V	0.0459	3.4	M	270
HCDS127T-330□	33	1 kHz, 1 V	0.0648	3	M	330
HCDS127T-390□	39	1 kHz, 1 V	0.0729	2.75	M	390
HCDS127T-470□	47	1 kHz, 1 V	0.1	2.5	M	470
HCDS127T-560□	56	1 kHz, 1 V	0.11	2.35	M	560
HCDS127T-680□	68	1 kHz, 1 V	0.14	2.1	M	680
HCDS127T-820□	82	1 kHz, 1 V	0.16	1.95	M	820
HCDS127T-101□	100	1 kHz, 1 V	0.22	1.7	M	101
HCDS127T-121□	120	1 kHz, 1 V	0.25	1.6	M	121
HCDS127T-151□	150	1 kHz, 1 V	0.28	1.42	M	151
HCDS127T-181□	180	1 kHz, 1 V	0.35	1.3	M	181
HCDS127T-221□	220	1 kHz, 1 V	0.39	1.16	M	221
HCDS127T-271□	270	1 kHz, 1 V	0.56	1.06	M	271
HCDS127T-331□	330	1 kHz, 1 V	0.64	0.95	M	331
HCDS127T-391□	390	1 kHz, 1 V	0.7	0.88	M	391
HCDS127T-471□	470	1 kHz, 1 V	0.98	0.79	M	471
HCDS127T-561□	560	1 kHz, 1 V	1.07	0.73	M	561
HCDS127T-681□	680	1 kHz, 1 V	1.46	0.67	M	681
HCDS127T-821□	820	1 kHz, 1 V	1.64	0.6	M	821
HCDS127T-102□	1000	1 kHz, 1 V	1.82	0.55	M	102

NOTE: □-tolerance M=±20% / T =±30%

1. Operating temperature range - 40 °C ~ 105 °C (Including self - temperature rise)

2. Isat for Inductance drop 35% from its value without current.

"-N" FOR COMPLETELY LEAD FREE TYPE (INCLUDING FERRITE BODY & SOLDER)



SMD POWER INDUCTORS

HCDS 129 series Standard Specifications

Part No.	Inductance (uH)	Test Freq.	RDC (Ω)Max.	Isat (A)	Tolerance	Marking
HCDS129T-100□	10	100 kHz, 1 V	0.016	11.5	M	100
HCDS129T-150□	15	100 kHz, 1 V	0.022	9.5	M	150
HCDS129T-220□	22	100 kHz, 1 V	0.03	8.0	M	220
HCDS129T-330□	33	100 kHz, 1 V	0.039	6.2	M	330
HCDS129T-470□	47	100 kHz, 1 V	0.056	5.1	M	470
HCDS129T-680□	68	100 kHz, 1 V	0.08	4.3	M	680
HCDS129T-101□	100	100 kHz, 1 V	0.125	3.5	K	101
HCDS129T-121□	120	100 kHz, 1 V	0.135	3.1	K	121
HCDS129T-151□	150	100 kHz, 1 V	0.185	2.9	K	151
HCDS129T-181□	180	100 kHz, 1 V	0.203	2.5	K	181
HCDS129T-221□	220	100 kHz, 1 V	0.225	2.3	K	221
HCDS129T-331□	330	100 kHz, 1 V	0.34	2.0	K	331
HCDS129T-471□	470	100 kHz, 1 V	0.51	1.5	K	471
HCDS129T-681□	680	100 kHz, 1 V	0.63	1.3	K	681
HCDS129T-102□	1000	100 kHz, 1 V	0.96	1.1	K	102

NOTE: □-tolerance M=±20% / T =±30%

1. Operating temperature range - 40 °C ~ 105 °C (Including self - temperature rise)

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SMD POWER INDUCTORS

HCDS series Reliability specification

1-1.Mechanical Performance

No	Item	Specificatio	Test Method
1-1-1	Vibration	Appearance: No Inductance: within initial value	Test device shall be soldered on the substrate Oscillation Frequency: 10 to 55 to 10Hz for 1min Amplitude: 1.5mm Time: 2hrs for each axis (X, Y & Z), total 6hrs
1-1-2	Resistance to Soldering Heat	Appearance: No	Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5 Solder Temperature: 260±5°C Immersion Time: 10±1sec
1-1-3	Solder ability	The electrodes least 95% cover solder coating	Pre-heating: 150°C, 1min Solder Composition: Sn/Ag3.0/Cu0.5 Solder Temperature: 245±3°C Immersion Time: ≤3sec
1-1-4	Resistance to solvent	There must be no change in appearance or obliteration of marking.	Inductors must withstand 6 minutes of alcohol or water.

1-2.Environmental Performance

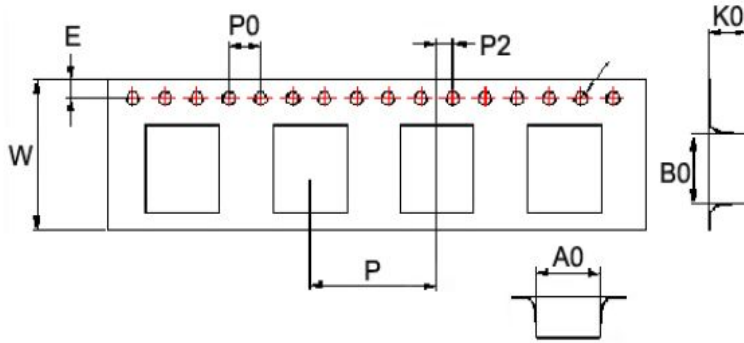
No	Item	Specificatio	Test Method		
1-2-1	Temperature Cycle	Appearance: No damage Inductance: within ±10% of initial value	One cycle:		
			Step	Temperature (°C)	Time (min)
			1	-55±3	30
			2	25±2	3
			3	125±3	30
4	25±2	3			
			Total: 100cycles Measured after exposure in the room condition for 24hrs		
1-2-2	Humidity Resistance		Temperature: 40±2°C Relative Humidity: 90 ~ 95% Time: 1000hrs Measured after exposure in the room condition for 24hrs		
1-2-3	High Temperature Resistance		Temperature: 125±3°C Relative Humidity: 0% Applied Current: Rated Current Time: 1000hrs Measured after exposure in the room condition for 24hrs		
1-2-4	Low Temperature Resistance		Temperature: -55±3°C Relative Humidity: 0% Time: 1000hrs Measured after exposure in the room condition for 24hrs		



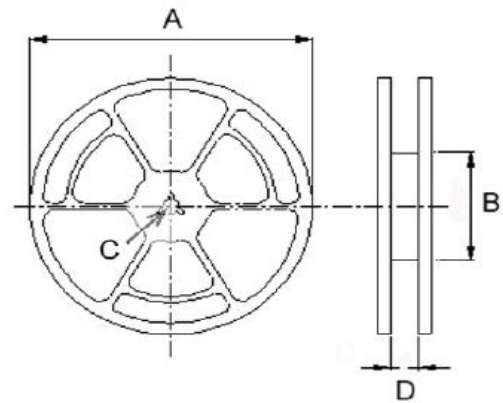
SMD POWER INDUCTORS

Packaging Specifications

Tape Dimensions



Reel Dimensions



dimensions in mm

TYPE	Tape Dimensions									Reel Dimensions				Quantity PCS/REEL
	A0	B0	K0	D	E	W	P	P0	P2	A	B	C	D	
HCDS73	7.6	7.6	3.6	1.55	1.75	16	12	4	2	330	100	13	16	1500
HCDS74	7.6	7.6	5	1.55	1.75	16	12	4	2	330	100	13	16	1000
HCDS124	12.6	12.6	5.1	1.55	1.75	24	16	4	2	330	100	13	24.4	500
HCDS125	12.6	12.6	6.7	1.55	1.75	24	16	4	2	330	100	13	24.4	500
HCDS127	12.6	12.6	8.7	1.55	1.75	24	16	4	2	330	100	13	24.4	500
HCDS129	12.6	12.6	10.7	1.55	1.75	24	16	4	2	330	100	13	24.4	400