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The following material resulting from the investigation under the above numbers is enclosed.

Issue

<u>Date</u>	<u>Vol</u>	<u>Sec</u>	<u>Pages</u>	<u>Revised Date</u>
	X1		Index Page(s)	
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<u>Product Type</u>	<u>Model/Type Reference</u>	<u>Report Reference #</u>	<u>Status</u>
Digital Video Recorder	SVR-430	E158873-A2-UL	
Video Presenter	UF-80, UF-80DX, UF-80ST	E158873-A4-UL	
Video Presenter	SVP-5300N	E158873-A5-UL	
Video Presenter	SDP-900DXAN, SDP-950DXAN, SDP-950STAN	E158873-A6-UL	
Video Presenter	SDP-850, SDP-850DX	E158873-A9-UL	
Digital Video Recorder	SVR-1650, SVR-1650E, SVR-1640, SVR-1640E, SVR-950, SVR-950E and SVR-1640A	E158873-A11-UL	
Video Presenter	SDP-6500DXA	E158873-A12-UL	
Video Presenter	UF-130DX	E158873-A14-UL	
Video Presenter	UF-130ST	E158873-A15-UL	
Network Video Recorder	SNR-6400, SNR-3200, SRN-3250, SRN-6450	E158873-A16-UL	
Digital Video Recorder.	SVR-480	E158873-A17-UL	Withdrawn
Video Presenter	SDP-860	E158873-A18-UL	
Digital Video Recorder.	SVR-1670	E158873-A19-UL	
UTP Power Supply Unit	SPU-400	E158873-A20-UL	Withdrawn
Digital Presenter	SDP-760	E158873-A44-UL	
Network Camera	SNP-5300H*, SNP-6201H* (* is Blank or N or P: N = NTSC, P=PAL)	E158873-A45-UL	
Network Camera	SND-7011*, SND-5011*, SND-5061*, SND-7061*, SNV-5010*, SNZ-5200* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A46-UL	
Network Camera	SNP-5300*, SNP-6201* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A47-UL	
Digital Color Camera	SCP-3371H*, SCP-2371H*, SCP-2271H*, SCP-2373H*, SCP-2273H* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A48-UL	
Digital Color Camera	SCP-3371*, SCP-2371*, SCP-2271*, SCP-2373*, SCP-2273* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A49-UL	
Network Camera	SND-7082*, SND-7082F*, SNV-7082* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A50-UL	
Network Camera	SNB-7001*, SNB-5001*, SNB-3002* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A51-UL	
Network Camera	SNO-7082R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A52-UL	
Network Camera	SNB-7002* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A53-UL	

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DIGITAL COLOR CAMERA	SCV-2010F*, SCD-1020R*, SCD-2080R*, SCD-2020R*, SCD-2010*, SCD-2010B*, SCD-2010F*, SCB-3020*, SCB-3021*, SCB-2010*, SCO-1020R* (* is blank or N or P: N=NTSC, P=PAL)	E158873-A54-UL	
Network Camera	SNB-6004*, SNB-6003*, SNB-5004*, SNB-5003*, SNB-7004*, SNB-6005* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A55-UL	
Network Camera	SND-6084*, SND-6083*, SND-5084*, SND-5083*, SND-7084* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A56-UL	
DIGITAL COLOR CAMERA	SCD-2022*, SCD-2022R*, SCD-2042R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A58-UL	
Digital Color Camera	SCB-2004*, SCB-2005* (* is blank or N or P: N = NTSC, P=PAL);	E158873-A59-UL	
Digital Color Camera	SCD-2082*, SCV-2082R*, SCV-3083*, SCD-3083* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A60-UL	
Network Camera	SND-6084R*, SND-7084R*, SND-5084R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A61-UL	
NETWORK CAMERA	SNO-6084R*. SNO-7084R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A62-UL	
Network Camera	SNV-6084R*, SNV-6084*, SNV-5084*, SNV-7084*, SNV-7084R*, SNV-5084R*, SNV-6084T* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A63-UL	
Digital Color Camera	SCO-2081R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A64-UL	
DIGITAL COLOR CAMERA	SCB-2004*D, SCB-2005*D (* is blank or N or P: N = NTSC, P=PAL)	E158873-A65-UL	
DIGITAL VIDEO RECORDER	SRD-1673D*, SRD-1654D*, SRD-854D*, SRD-852D*, SRD-1673*, SRD-1653*, SRD-873*, SRD-1640*, SRD-840*(* is blank or N or P, N=NTSC / P=PAL)	E158873-A66-UL	
Network Camera	SNP-6200RH*, SCP-2370RH* (* is blank or N or P: N=NTSC,P=PAL)	E158873-A67-UL	
Network Camera	SNV-6012M* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A68-UL	
Network Camera	SNF-7010*, SNF-7010V*, SNF-7010VM* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A69-UL	
Network Camera	SNO-6011R* (* is blank or N or	E158873-A72-UL	

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	P: N = NTSC, P=PAL)		
Network Camera	SND-6011R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A73-UL	
Digital Video Recorder	SRD-1680D*, SRD-880D* (* is blank or N or P : N=NTSC, P=PAL)	E158873-A74-UL	
DIGITAL COLOR CAMERA	SCZ-2373*, SCZ-2273* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A75-UL	
NETWORK CAMERA	SCO-6081R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A76-UL	
DIGITAL COLOR CAMERA	SCV-6081R* and SCD-6081R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A77-UL	
NETWORK VIDEO RECORDER	SRN-4000	E158873-A78-UL	
DIGITAL COLOR CAMERA	SCD-6021* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A81-UL	
NETWORK CAMERA	SNV-6013* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A83-UL	
NETWORK CAMERA	SNB-6010*, SNB-6010A*, SNB-6011*, SNB-6010B*, SNB-6011B* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A85-UL	
NETWORK CAMERA	SNP-6320H*, SNP-5430H* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A86-UL	
NETWORK CAMERA	SNP-6320*, SNP-5430* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A87-UL	
Network Video Recorder	SRN-472S, XRN-810S* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A88-UL	
Digital Video Recorder	SRD-1676D*, SRD-1656D*, SRD-876D* (* is blank or N or P, N=NTSC/ P=PAL)	E158873-A89-UL	
DIGITAL COLOR CAMERA	SCB-5000* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A90-UL	
DIGITAL COLOR CAMERA	SCB-5000*D (* is blank or N or P: N = NTSC, P=PAL)	E158873-A91-UL	
DIGITAL COLOR CAMERA	SCD-5080* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A92-UL	
DIGITAL COLOR CAMERA	SCB-5003*, SCB-5005*, HCB-6001* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A94-UL	
DIGITAL COLOR CAMERA	SCV-5082* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A95-UL	
DIGITAL COLOR CAMERA	SCD-5083*, SCD-5083R*, SCD-5082*, SCD-5083B*, SCD-5081R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A96-UL	
DIGITAL COLOR CAMERA	SCV-5083* (* is blank or N or P: N = NTSC, P=PAL) SCV-5083R* (* is blank or N or	E158873-A97-UL	

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	P: N = NTSC, P=PAL) SCV-5081R* (* is blank or N or P: N = NTSC, P=PAL)		
NETWORK CAMERA	SNF-8010VM*, SNF-8010* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A98-UL	
DIGITAL COLOR CAMERA	SCD-5030*, SCD-5020* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A99-UL	
NETWORK CAMERA	SNO-5084R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A100-UL	
DIGITAL COLOR CAMERA	SCO-5083R*, SCO-5081R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A101-UL	
NETWORK CAMERA	SNP-6321*, SNP-L6233* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A102-UL	
NETWORK CAMERA	SNP-6321H*, SNP-L6233H* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A103-UL	
DIGITAL COLOR CAMERA	SCV-5085* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A104-UL	
NETWORK CAMERA	SNB-8000* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A105-UL	
NETWORK CAMERA	SNV-8080* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A106-UL	
NETWORK CAMERA	SNZ-6320	E158873-A107-UL	
NETWORK CAMERA	SNP-6320RH*, SNP-L6233RH* (* is blank or N or P: N=NTSC,P=PAL)	E158873-A108-UL	
NETWORK CAMERA	SNP-5321H*, SNP-L5233H* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A109-UL	
NETWORK CAMERA	SNP-5321*, SNP-L5233* (* is blank or N: NTSC or P:PAL)	E158873-A110-UL	
NETWORK CAMERA	SND-L6013R*, SND-L6013*, SND-L6012*, SND-L5013* (* is blank or N or P: N:NTSC/P:PAL)	E158873-A111-UL	
NETWORK CAMERA	SNO-L6083R*, SNO-L5083R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A113-UL	
Network Video Recorder	SRN-1673S*(* is blank or N or P: N = NTSC, P=PAL)	E158873-A115-UL	
NETWORK CAMERA	SNO-L6013R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A118-UL	
NETWORK CAMERA	SND-L6083R*, SND-L5083R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A119-UL	
Network Video Recorder	SRN-873S* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A120-UL	
NETWORK CAMERA	SNV-L6083R*, SNV-L5083R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A121-UL	

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NETWORK CAMERA	SNB-9000* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A122-UL	
Optical PTZ Accessary	SBP-301HF	E158873-A125-UL	
Optical PTZ Accessary	SBP-300HF	E158873-A126-UL	
NETWORK CAMERA	SNV-8081R* (* is Blank or N or P: N = NTSC, P=PAL)	E158873-A127-UL	
NETWORK CAMERA	SNO-8081R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A128-UL	
NETWORK CAMERA	SNV-6085R* (* is blank or N or P: N = NTSC, P=PAL) SNV-6085* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A129-UL	
DIGITAL COLOR CAMERA	SCB-6003* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A130-UL	
DIGITAL COLOR CAMERA	SCO-6023R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A132-UL	
DIGITAL COLOR CAMERA	SCV-6083R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A133-UL	
DIGITAL COLOR CAMERA	SCV-6023R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A135-UL	
DIGITAL COLOR CAMERA	SCD-6023R*, SCD-6013* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A136-UL	
DIGITAL COLOR CAMERA	SCD-6083R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A137-UL	
DIGITAL COLOR CAMERA	SCO-6083R*(* is blank or N or P: N = NTSC, P=PAL)	E158873-A138-UL	
NETWORK CAMERA	SNV-L6014RM*, SNV-L6013R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A139-UL	
DIGITAL COLOR CAMERA	PNO-9080R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A140-UL	
NETWORK CAMERA	PNV-9080R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A141-UL	
NETWORK CAMERA	PND-9080R* (* is blank or N or P: N = NTSC, P=PAL)	E158873-A142-UL	
Digital Video Recorder	SRD-1685*, SRD-894*, HRD-842* (* is blank or N or P, N=NTSC/ P=PAL)	E158873-A143-UL	
Digital Video Recorder	SRD-1694*, HRD-1642* (* is blank or N or P, N=NTSC/ P=PAL)	E158873-A144-UL	
Network Video Recorder (NVR)	XRN-2011*, XRN-2010*, XRN-3010*, XRN-1610* (* is blank or N or P: N=NTSC, P=PAL) XRN-2010P/DM, XRN-3010P/DM, XRN-3010A, XRN-2011A, XRN-2010A, XRN-1610A	E158873-A146-UL	
NETWORK CAMERA	QNO-7030R*, QNO-7020R*, QNO-7010R*, QNO-6030R*, QNO-6020R*, QNO-6010R*, QNO-6070R*, QNO-7080R* (* is N or P: N = NTSC, P=PAL)	E158873-A147-UL	

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NETWORK CAMERA	QND-7030R*, QND-7020R*, QND-7010R*, QND-6030R*, QND-6020R*, QND-6010R*, QND-6070R*, QND-7080R* (* is N or P: N = NTSC, P=PAL)	E158873-A148-UL	
NETWORK CAMERA	QNV-7030R*, QNV-7020R*, QNV-7010R*, QNV-6030R*, QNV-6020R*, QNV-6010R*, QNV-6070R*, QNV-7080R* (* is N or P: N = NTSC, P=PAL)	E158873-A149-UL	
Network Video Recorder	XRN-1610S* (* is N or P: N=NTSC, P=PAL)	E158873-A150-UL	
NETWORK CAMERA	PNF-9010RV*, PNF-9010R*, PNF-9010RVM* (* is N or P: N = NTSC, P=PAL)	E158873-A151-UL	
NETWORK CAMERA	PNM-9020V* (* is N or P: N = NTSC, P=PAL)	E158873-A152-UL	
Network Video Recorder	PRN-4011* (* is N or P: N=NTSC, P=PAL)	E158873-A153-UL	
DIGITAL COLOR CAMERA	HCP-6320* (* is N or P: N = NTSC, P=PAL)	E158873-A154-UL	
DIGITAL COLOR CAMERA	HCP-6320H* (* is N or P: N = NTSC, P=PAL)	E158873-A155-UL	
NETWORK CAMERA	PNP-9200RH*, XNP-6370RH* (* is N or P: N=NT, P=PAL)	E158873-A156-UL	
NETWORK CAMERA	XNB-8000*, XNB-6000* (* is N or P: N = NTSC, P=PAL)	E158873-A157-UL	
NETWORK CAMERA	XNO-8080R*, XNO-6080R* (* is N or P: N = NTSC, P=PAL)	E158873-A158-UL	
NETWORK CAMERA	XNV-8040R*, XNV-8030R*, XNV-8020R*, XNV-6020*, XNV-6010* (* is N or P: N = NTSC, P=PAL)	E158873-A159-UL	
NETWORK CAMERA	XND-8040R*, XND-8030R*, XND-8020R*, XND-6020*, XND-6010* (* is N or P: N = NTSC, P=PAL)	E158873-A160-UL	
NETWORK CAMERA	XNV-8080R* (* is N or P: N = NTSC, P=PAL) XNV-6080R* (* is N or P: N = NTSC, P=PAL) XNV-6080* (* is N or P: N = NTSC, P=PAL)	E158873-A161-UL	
NETWORK CAMERA	XND-8080RV*, XND-8080R*, XND-6080RV*, XND-6080R*, XND-6080V*, XND-6080* (* is N or P: N = NTSC, P=PAL)	E158873-A162-UL	
AHD Multi Directional Camera	HCM-9020VQ* (is N or P: N = NTSC, P=PAL)	E158873-A163-UL	
NETWORK CAMERA	XNO-8020R*, XNO-8030R*, XNO-8040R*, XNO-6010R*, XNO-6020R* (* is N or P: N = NTSC, P=PAL)	E158873-A164-UL	
NETWORK CAMERA	XNV-6011* (* is N or P: N =	E158873-A165-UL	

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	NTSC, P=PAL)		
DIGITAL COLOR CAMERA	HCD-6080R*, HCD-6070R* (* is N or P: N = NTSC, P=PAL)	E158873-A167-UL	
DIGITAL COLOR CAMERA	HCV-6080R*, HCV-6070R* (* is N or P: N = NTSC, P=PAL)	E158873-A168-UL	
NETWORK CAMERA	XNP-6120H* (* is N or P: N = NTSC, P=PAL)	E158873-A169-UL	
NETWORK CAMERA	XND-8020F*, XND-6011F* (* is N or P: N = NTSC, P=PAL)	E158873-A170-UL	
NETWORK CAMERA	PNM-9080VQ* (* is N or P: N = NTSC, P = PAL)	E158873-A172-UL	
Network Storage	SRB-160S	E158873-A173-UL	
NETWORK CAMERA	TNB-6030* (* is N or P: N = NTSC, P = PAL)	E158873-A174-UL	
NETWORK CAMERA	PNM-9081VQ* (* is N or P: N = NTSC, P = PAL)	E158873-A176-UL	
NETWORK CAMERA	XNO-6085R* (* is N or P: N = NTSC, P=PAL)	E158873-A177-UL	
NETWORK CAMERA	XNB-6005* (* is N or P: N = NTSC, P=PAL)	E158873-A178-UL	
NETWORK VIDEO RECORDER	SNR-D5401N	E158873-A179-UL	
NETWORK CAMERA	XND-6085*, XND-6085V* (* is N or P: N = NTSC, P=PAL)	E158873-A180-UL	
NETWORK CAMERA	XNV-6085* (* is N or P: N = NTSC, P=PAL)	E158873-A181-UL	
NETWORK CAMERA	XNP-6040H* (* is N or P: N = NTSC, P=PAL)	E158873-A182-UL	
NETWORK VIDEO DECODER	SPD-150* (* is N or P: N = NTSC, P=PAL)	E158873-A184-UL	
DIGITAL COLOR CAMERA	HCB-6000*, HCB-7000* (* is N or P: N = NTSC, P=PAL)	E158873-A185-UL	
DIGITAL COLOR CAMERA	HCZ-6320* (* is N or P: N = NTSC, P=PAL)	E158873-A186-UL	
NETWORK CAMERA	XNF-8010RVM*, XNF-8010RV*, XNF-8010R* (* is N or P: N = NTSC, P=PAL)	E158873-A187-UL	
DIGITAL COLOR CAMERA	HCO-6070R*, HCO-6080R* (* is N or P: N = NTSC, P=PAL)	E158873-A188-UL	
NETWORK CAMERA	XNB-6001* (* is N or P: N = NTSC, P=PAL)	E158873-A189-UL	
DIGITAL COLOR CAMERA	HCO-7070R* (* is N or P: N = NTSC, P=PAL)	E158873-A190-UL	
LENS MODULE	SLA-T2480*, SLA-T2480V*, SLA-T4680*, SLA-T4680V* (* is N or P: N = NTSC, P=PAL), SLA-T4680D, SLA-T4680DW, SLA-T4680DS, SLA-T2415, SLA-T2815B.	E158873-A191-UL	
DIGITAL COLOR CAMERA	HCD-7070R* (* is N or P: N = NTSC, P=PAL)	E158873-A192-UL	
DIGITAL COLOR CAMERA	HCV-7070R* (* is N or P: N = NTSC, P=PAL)	E158873-A193-UL	

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NETWORK VIDEO RECORDER	TRM-1610S	E158873-A194-UL	
LENS MODULE	SLA-T1080F* (* is N or P: N = NTSC, P=PAL)	E158873-A195-UL	
NETWORK SWITCH	SPN-10080P, SPN-10080PM	E158873-A196-UL	
ANALOG CAMERA	HCV-7010R*, HCV-7020R*, HCV-7030R* (* is N or P: N = NTSC, P=PAL)	E158873-A197-UL	
DIGITAL COLOR CAMERA	HCD-7010R*, HCD-7020R*, HCD-7030R* (* is N or P: N = NTSC, P=PAL)	E158873-A198-UL	
DIGITAL COLOR CAMERA	HCO-7010R*, HCO-7020R* , HCO-7030R* (* is N or P: N = NTSC, P=PAL)	E158873-A199-UL	
NETWORK CAMERA	XNP-6320, QNP-6230, XNP-6321	E158873-A200-UL	
NETWORK CAMERA	XNP-6320H, XNP-6320HS, QNP-6230H, XNP-6321H	E158873-A201-UL	
NETWORK THERMAL CAMERA	TNO-4050T, TNO-4030T, TNO-4040T	E158873-A202-UL	
NETWORK THERMAL CAMERA	TNO-4051T, TNO-4041T	E158873-A204-UL	
NETWORK CAMERA	XNV-6013M	E158873-A205-UL	
NETWORK CAMERA	XNV-6012M, XNV-6012	E158873-A206-UL	
NETWORK CAMERA	XNV-6022R, XNV-6022RM	E158873-A207-UL	
NETWORK CAMERA	LNO-6070R, LNO-6071R	E158873-A208-UL	
NETWORK CAMERA	LNO-6030R, LNO-6020R, LNO-6010R, LNO-6031R, LNO-6021R, LNO-6011R, LNO-6011RW	E158873-A209-UL	
NETWORK CAMERA	LNV-6070R	E158873-A210-UL	
NETWORK CAMERA	LND-6070R, LND-6071R	E158873-A213-UL	
NETWORK CAMERA	LNV-6030R, LNV-6020R, LNV-6010R, LNV-6031R, LNV-6021R, LNV-6011R	E158873-A214-UL	
NETWORK CAMERA	LND-6030R, LND-6020R, LND-6010R	E158873-A215-UL	
NETWORK CAMERA	XNV-L6080R, XNV-L6080	E158873-A216-UL	
NETWORK CAMERA	XND-L6080RV, XND-L6080R, XND-L6080V	E158873-A217-UL	
NETWORK CAMERA	XNO-L6080R	E158873-A218-UL	
NETWORK CAMERA	PNM-7000VD	E158873-A220-UL	
NETWORK VIDEO ENCODER	SPE-410, SPE-410A* (* is Blank or N or P, N = NTSC, P = PAL)	E158873-A222-UL	
NETWORK VIDEO ENCODER	SPE-1610, SPE-1610A* (* is Blank or N or P, N = NTSC, P = PAL), NVE3016	E158873-A223-UL	
NETWORK POSITIONING CAMERA	TNU-6320	E158873-A224-UL	
Network Video Recorder	QRN-1610S	E158873-A225-UL	

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E158873	Index	X1	9	20-Oct-19

NETWORK CAMERA	QNE-7080RV, QNE-6080RV	E158873-A226-UL	
NETWORK CAMERA	PNM-9000VQ	E158873-A227-UL	
Network Camera	XNP-6550RH, XNP-6320RH, XNP-6250RH, QNP-6230RH	E158873-A229-UL	
NETWORK CAMERA	PNM-9320VQP, PNM- 9321VQP.	E158873-A230-UL	
NETWORK CAMERA	XNZ-6320	E158873-A231-UL	
NETWORK ENCODER	SPE-110N, SPE-110A* (* is Blank or N or P, N = NTSC, P = PAL)	E158873-A232-UL	
THERMAL POSITIONING CAMERA	TNU-4041T, TNU-4051T	E158873-A233-UL	
NETWORK CAMERA	PNM-9030V	E158873-A234-UL	
NETWORK CAMERA	TNV-7010RC	E158873-A235-UL	
NETWORK CAMERA	XND-8081VZ, XND-8081FZ, XND-6081VZ, XND-6081FZ	E158873-A236-UL	
DIGITAL COLOR CAMERA	HCF-8010V	E158873-A239-UL	
ANALOG CAMERA	HCO-6020R	E158873-A241-UL	
NETWORK CAMERA	XNV-6081, XNV-6081R, XNV- 8081R	E158873-A242-UL	
NETWORK VIDEO RECORDER	TRM-810S, TRM-410S	E158873-A243-UL	
ANALOG CAMERA	HCD-6020R, HCD-6010	E158873-A244-UL	
NETWORK CAMERA	XND-6081V, XND-6081F, XND- 6081RV, XND-6081RF, XND- 8081RV, XND-8081RF	E158873-A245-UL	
NETWORK CAMERA	XND-L6080	E158873-A246-UL	
NETWORK CAMERA	TNO-6010M	E158873-A247-UL	
ANALOG CAMERA	SCO-6085R	E158873-A248-UL	
NETWORK CAMERA	PNM-9000VD	E158873-A249-UL	
NETWORK CAMERA	QND-6083R, QND-6082R, QND-6073R, QND-6072R, QND-6032R, QND-6022R, QND-6012R	E158873-A250-UL	
NETWORK CAMERA	QNE-8021R, QNE-8011R	E158873-A251-UL	
NETWORK CAMERA	QND-8021, QND-8011	E158873-A252-UL	
NETWORK CAMERA	QNO-8080R, QNO-8010R, QNO-8020R, QNO-8030R	E158873-A253-UL	
NETWORK CAMERA	QND-6021, QND-6011	E158873-A254-UL	
NETWORK CAMERA	QNO-6083R, QNO-6082R, QNO-6012R, QNO-6022R, QNO-6032R, QNO-6072R, QNO-6073R	E158873-A255-UL	
NETWORK CAMERA	QNV-6083R, QNV-6082R, QNV- 6073R, QNV-6072R, QNV- 6012R, QNV-6022R, QNV- 6032R	E158873-A256-UL	
NETWORK CAMERA	QNV-8080R, QNV-8010R, QNV- 8020R, QNV-8030R	E158873-A257-UL	
NETWORK CAMERA	QND-8080R, QND-8010R, QND-8020R, QND-8030R	E158873-A258-UL	

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E158873	Index	X1	10	20-Oct-19

NETWORK CAMERA	QNF-8010	E158873-A259-UL	
NETWORK CAMERA	LVN-6012R, LVN-6022R, LVN-6032R	E158873-A260-UL	
NETWORK CAMERA	LVN-6072R	E158873-A261-UL	
NETWORK CAMERA	LND-6012R, LND-6022R, LND-6032R	E158873-A262-UL	
NETWORK CAMERA	LND-6072R	E158873-A263-UL	
NETWORK CAMERA	QNV-6024RM, QNV-6023R	E158873-A264-UL	
NETWORK CAMERA	LNO-6012R, LNO-6022R, LNO-6032R	E158873-A265-UL	
NETWORK CAMERA	LNO-6072R	E158873-A266-UL	
Digital Video Recorder	HRX-1621* (* is Blank or N or P : P=PAL, N=NTSC)	E158873-A267-UL	
Digital Video Recorder	HRX-821* (* is Blank or N or P : P=PAL, N=NTSC)	E158873-A268-UL	
NETWORK THERMAL CAMERA	TNO-3010T, TNO-3020T, TNO-3030T	E158873-A269-UL	
NETWORK CAMERA	PNM-9084QZ	E158873-A270-UL	

CERTIFICATE OF COMPLIANCE

Certificate Number 20191022-E158873
Report Reference E158873-A270-UL
Issue Date 2019-OCTOBER-22

Issued to: Hanwha Techwin Co Ltd
6, Pangyo-ro 319beon-gil, Bundang-gu
Seongnam-si Gyeonggi-do 13488 KOREA

**This certificate confirms that
representative samples of**

INFORMATION TECHNOLOGY EQUIPMENT INCLUDING
ELECTRICAL BUSINESS EQUIPMENT
NETWORK CAMERA - PNM-9084QZ

Have been investigated by UL in accordance with the
Standard(s) indicated on this Certificate.

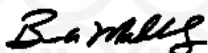
Standard(s) for Safety: UL 60950-1 and CAN/CSA C22.2 No. 60950-1-07 -
Information Technology Equipment - Safety - Part 1:
General Requirements

Additional Information: See the UL Online Certifications Directory at
<https://iq.ulprospector.com> for additional information.

This *Certificate of Compliance* does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.



Bruce Mahrenholz, Director North American Certification Program
UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at <http://ul.com/aboutul/locations/>



UL TEST REPORT AND PROCEDURE

Standard:	UL 60950-1, 2nd Edition, 2019-05-09 (Information Technology Equipment - Safety - Part 1: General Requirements) CAN/CSA C22.2 No. 60950-1-07, 2nd Edition, 2014-10 (Information Technology Equipment - Safety - Part 1: General Requirements)
Certification Type:	Listing
CCN:	NWGQ, NWGQ7 (Information Technology Equipment Including Electrical Business Equipment)
Product:	NETWORK CAMERA
Model:	PNM-9084QZ
Rating:	Rated Input: PoE (55 Vdc), 0.6 A
Applicant Name and Address:	HANWHA TECHWIN CO LTD 6, PANGYO-RO 319BEON-GIL, BUNDANG-GU SEONGNAM-SI KOREA, REPUBLIC OF

This is to certify that representative samples of the products covered by this Test Report have been investigated in accordance with the above referenced Standards. The products have been found to comply with the requirements covering the category and the products are judged to be eligible for Follow-Up Service under the indicated Test Procedure. The manufacturer is authorized to use the UL Mark on such products which comply with this Test Report and any other applicable requirements of UL LLC ('UL') in accordance with the Follow-Up Service Agreement. Only those products which properly bear the UL Mark are considered as being covered by UL's Follow-Up Service under the indicated Test Procedure.

The applicant is authorized to reproduce the referenced Test Report provided it is reproduced in its entirety.

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

Prepared by: Sungil Kim

Reviewed by: Seungtae Kim

Supporting Documentation

The following documents located at the beginning of this Procedure supplement the requirements of this Test Report:

- A. Authorization - The Authorization page may include additional Factory Identification Code markings.
- B. Generic Inspection Instructions -
 - i. Part AC details important information which may be applicable to products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of this Test Report.
 - ii. Part AE details any requirements which may be applicable to all products covered by this Procedure. Products described in this Test Report must comply with any applicable items listed unless otherwise stated in the body of each Test Report.
 - iii. Part AF details the requirements for the UL Certification Mark which is not controlled by the technical standard used to investigate these products. Products are permitted to bear only the Certification Mark(s) corresponding to the countries for which it is certified, as indicated in each Test Report.

Product Description

NETWORK CAMERA with 4 lens modules for indoor use.

Electronic components were mounted on PWB and housed in plastic and metal enclosure and supplied by SELV and LPS.

Model Differences

N/A

Technical Considerations

- Equipment mobility : Fixed
- Connection to the mains : N/A
- Operating condition : continuous
- Access location : operator accessible
- Over voltage category (OVC) : OVC I
- Mains supply tolerance (%) or absolute mains supply values : No direct connection
- Tested for IT power systems : No
- IT testing, phase-phase voltage (V) : N/A
- Class of equipment : Class III (supplied by SELV)
- Considered current rating of protective device as part of the building installation (A) : N/A
- Pollution degree (PD) : PD 2
- IP protection class : IP 66
- Altitude of operation (m) : less than 2000 meters
- Altitude of test laboratory (m) : less than 2000 meters
- Mass of equipment (kg) : 3.06
- The product was submitted and evaluated for use at the maximum ambient temperature (Tma) permitted by the manufacturer's specification of: 55 °C
- The following are available from the Applicant upon request: Installation (Safety) Instructions / Manual

Additional Information

Original (4789162849)

- Maximum normal load: Continuous operation.

Additional Standards

The product fulfills the requirements of: N/A

Markings and instructions

Clause Title	Marking or Instruction Details
Power rating - Ratings	Ratings (voltage, frequency/dc, current)
Power rating - Company identification	Listee's or Recognized company's name, Trade Name, Trademark or File Number
Power rating - Model	Model Number
Replaceable batteries	"CAUTION: Risk of Explosion if Battery is replaced by an Incorrect Type. Dispose of Used Batteries According to the Instructions."
Website Manual -1	This product is intended to be supplied by a Listed Power Supply Unit marked "Class 2" or "LPS" and rated from PoE(55 Vdc), 0.6 A.
Website Manual -2	The wired LAN hub providing power over the Ethernet (PoE) in accordance with IEEE 802.3 shall be a UL Listed device with the output evaluated as a Limited Power Source as defined in UL60950-1.
Website Manual -3	ITE is to be connected only to PoE networks without routing to the outside plant. Unit is intended for installation in a Network Environment 0 as defined in IEC TR 62102. As such, associated Ethernet wiring shall be limited to inside the building.
Hard copy	A. IMPORTANT B. See Installation Instructions Before Connecting to the Supply C. Company website URL (https://www.~~)

Special Instructions to UL Representative

N/A

Production-Line Testing Requirements

Electric Strength Test Special Constructions - Refer to Generic Inspection Instructions, Part AC for further information.

Model	Component	Removable Parts	Test probe location	V rms	V dc	Test Time, s
N/A	N/A	N/A	N/A	N/A	N/A	N/A

Earthing Continuity Test Exemptions - This test is not required for the following models:

All models

Electric Strength Test Exemptions - This test is not required for the following models:

All models

Electric Strength Test Component Exemptions - The following solid-state components may be disconnected from the remainder of the circuitry during the performance of this test:

Sample and Test Specifics for Follow-Up Tests at UL

Model	Component	Material	Test	Sample(s)	Test Specifics
N/A					

1.5.1	TABLE: list of critical components					Pass
Object/part or Description	Manufacturer/ trademark	type/model	technical data	Product Category CCN(s)	Required Marks of Conformity	Supplement ID
Power over ethernet (PoE) DC power injectors (Optional)	MICROSEMI CORP	PD-9501GR/AC	Input: 100-240 Vac, 50/60Hz, 1.5 A, Output: 55Vdc 1.1A, complied with LPS.	NWGQ/7	UL (E177380)	
Dome cover	MITSUBISHI ENGINEERING-PLASTICS CORP	S-2000V+(f1), S-2001V+(f1), S-2003V+(f1)	Min. 2.0 mm thickness, rated V-2, 115 deg.C, see enclosure for dimension.	QMFZ2/8	UL (E41179)	
Dome plastic (Black)	LOTTE ADVANCED MATERIALS CO LTD	NH-1035(+)	Min. 2.0 mm thickness, rated Min. V-0, 80 deg.C, see enclosure for dimension.	QMFZ2/8	UL (E115797)	
External side enclosure	Interchangeable	Interchangeable	Aluminium, Min. 2.5 mm thickness, see enclosure for dimension.	-	-	
External Bottom Enclosure	Interchangeable	Interchangeable	Aluminium, Min. 2.5 mm thickness, see enclosure for dimension.	-	-	
Internal plastic part	LOTTE ADVANCED MATERIALS CO LTD	NH-1035(+)	Min. 1.5 mm thickness, rated Min. V-0, 80 deg. C.	QMFZ2/8	UL (E115797)	
Transformer (T4)	SAMWHA TECOM CO LTD	ASTEE20-12R0281	130 deg.C	-	-	
LINE FILTER (L6)	TNC CO LTD	CV320070SB	7.0 mH, 130 deg.C	-	-	
Lithium Battery (BAT1, BAT2, BAT3, BAT4, BAT 5)	SEIKO INSTRUMENTS INC MICRO-ENERGY DIV	ML414H	Lithium (Coin), Rechargeable, Max. Charging Voltage: 3.4 Vdc, Max. Charging Current: 300 mAh	BBCV2	UL (MH15628)	
Opto-coupler (LS2)	LITE-ON TECHNOLOGY CORP	LTV-816	Isolation Voltage: 5 000. Max. Operation Temperature: 110 deg.C	FPQU2/8	UL (E113898)	
Motor (Tilt, Pan Motor)	Minebea (Cambodia) Co.,Ltd.	EP08-002492A	Operation Voltage DC 5.0V , 200mA, Max. starting pulse rate 2400 pps	-	-	
Motor (Rotate)	NMB TECHNOLOGIES	EP08-000101	Operation Voltage DC 5.0V , 200mA Max. starting pulse rate	-	-	

	CORP		2400 pps			
Heater resistor (24 ea, R1 to R24 in each lens module)	Interchangeable	Interchangeable	10 ohm, 1/4 W for each resistor	-	-	
Thermal Pad	KOMOTECH CO LTD	KGP-1(a)	Min. 0.2 mm thickness, rated V-0, 150 deg.C	QMFZ2/8	UL (E245303)	
Internal Wiring (Secondary)	Interchangeable	Interchangeable	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; Min. 30 V, 80 deg.C	AVLV2	UL	
Cable	Interchangeable	Interchangeable	FEP, PTFE, PVC, TFE, neoprene, polyimide or marked VW-1; Min. 30 V, 80 deg.C	AVLV2	UL	
Connectors and Receptacles (Secondary circuits)	Interchangeable	Interchangeable	-	ECBT2 or RTRT2	UL	
Connectors and Receptacles (Secondary circuits) (Alternate)	Interchangeable	Interchangeable	Copper alloy pins housed in bodies of plastic rated Min. V-2	QMFZ2	UL	
FPWB	Interchangeable	Interchangeable	Min. V-0, 80 deg.C.	QMFZ2 or QMTS2	UL	
PWB	EXPRESS ELECTRONICS LTD	14MV0	Min. V-0, 130 deg.C.	ZPMV2/8	UL (E157925)	
PWB (Alternate)	Interchangeable	Interchangeable	Min. V-0, 130 deg.C.	ZPMV2/8	UL	
Label	Interchangeable	Interchangeable	Min.55 deg.C if max. surface temperature not specified.	PGDQ2 or PGJ12	UL	

Enclosures

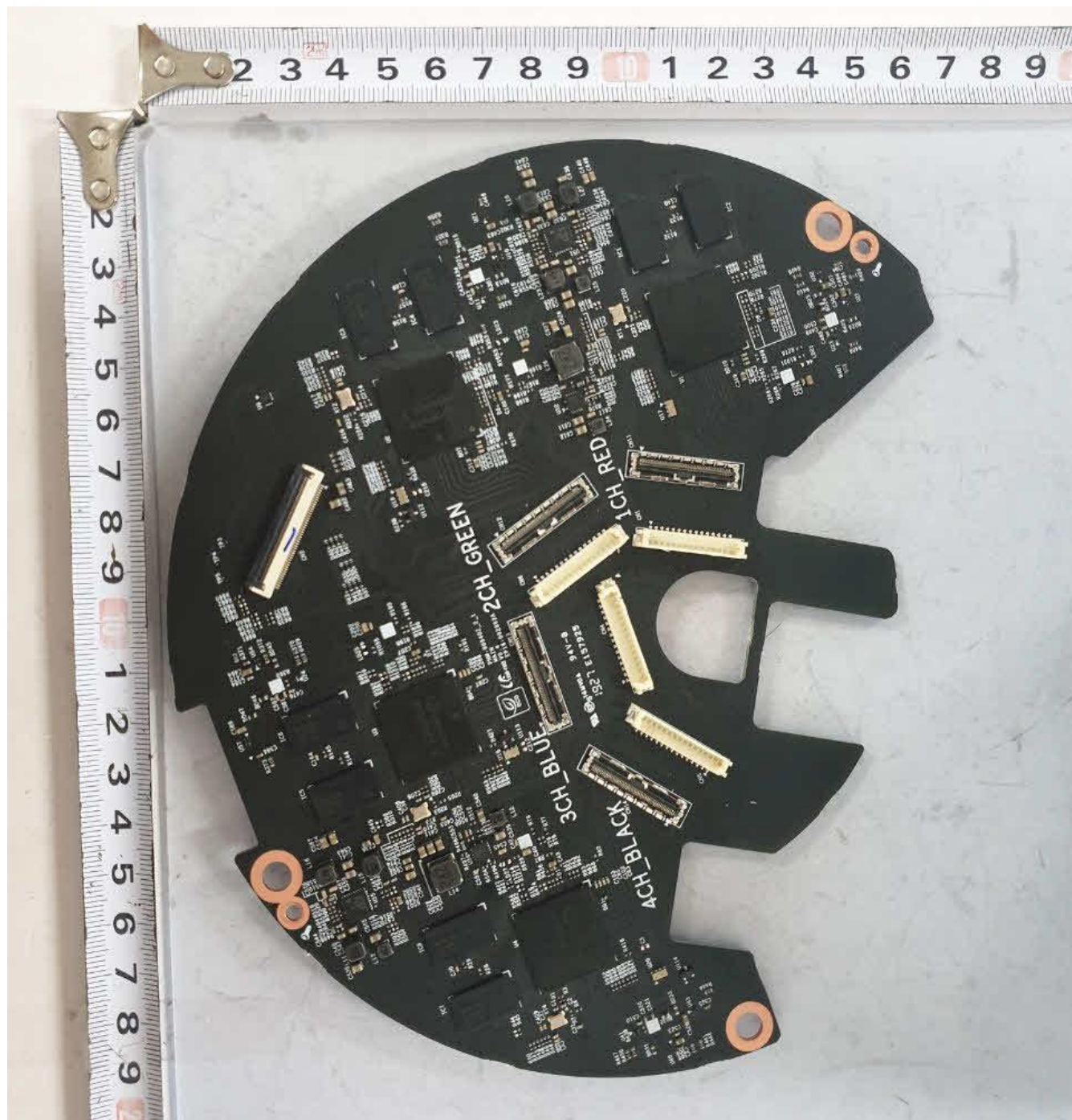
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Photographs	3-01	Overall
Photographs	3-02	Rear
Photographs	3-03	Internal -1
Photographs	3-04	Internal -2
Photographs	3-05	Main board (Top)
Photographs	3-06	Main board (Bottom)
Photographs	3-08	Interface board (Top)
Photographs	3-09	Interface board (Bottom)
Photographs	3-10	Network board (Top)
Photographs	3-11	Network board (Bottom)
Photographs	3-12	Lens module -1
Photographs	3-13	Lens module -2
Manuals	6-01	Manual
Miscellaneous	7-01	Enclosure dimension
Miscellaneous	7-02	Transformer (T4) spec
Miscellaneous	7-03	Label
Miscellaneous	7-04	Dual language safety labeling CRD

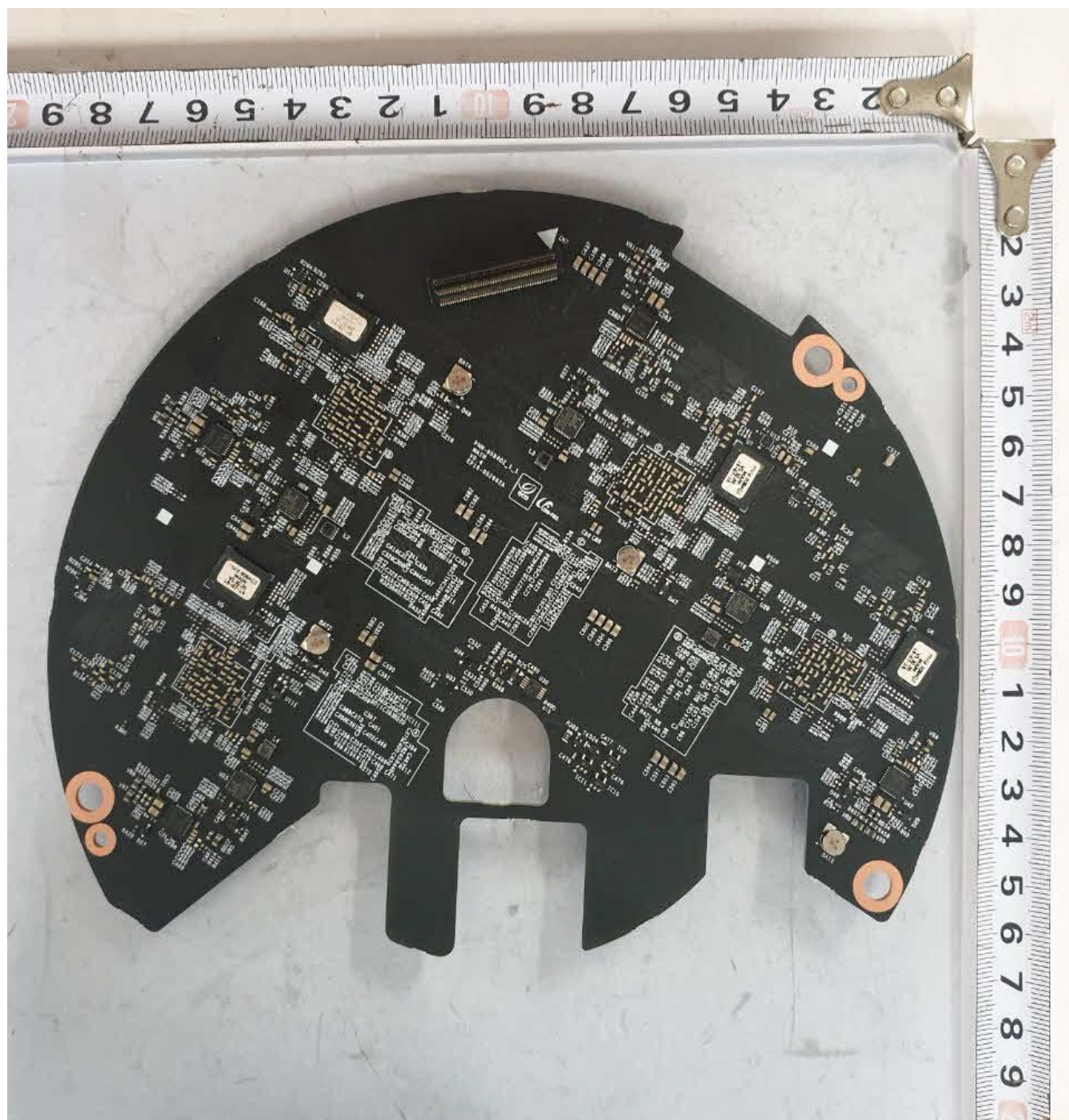


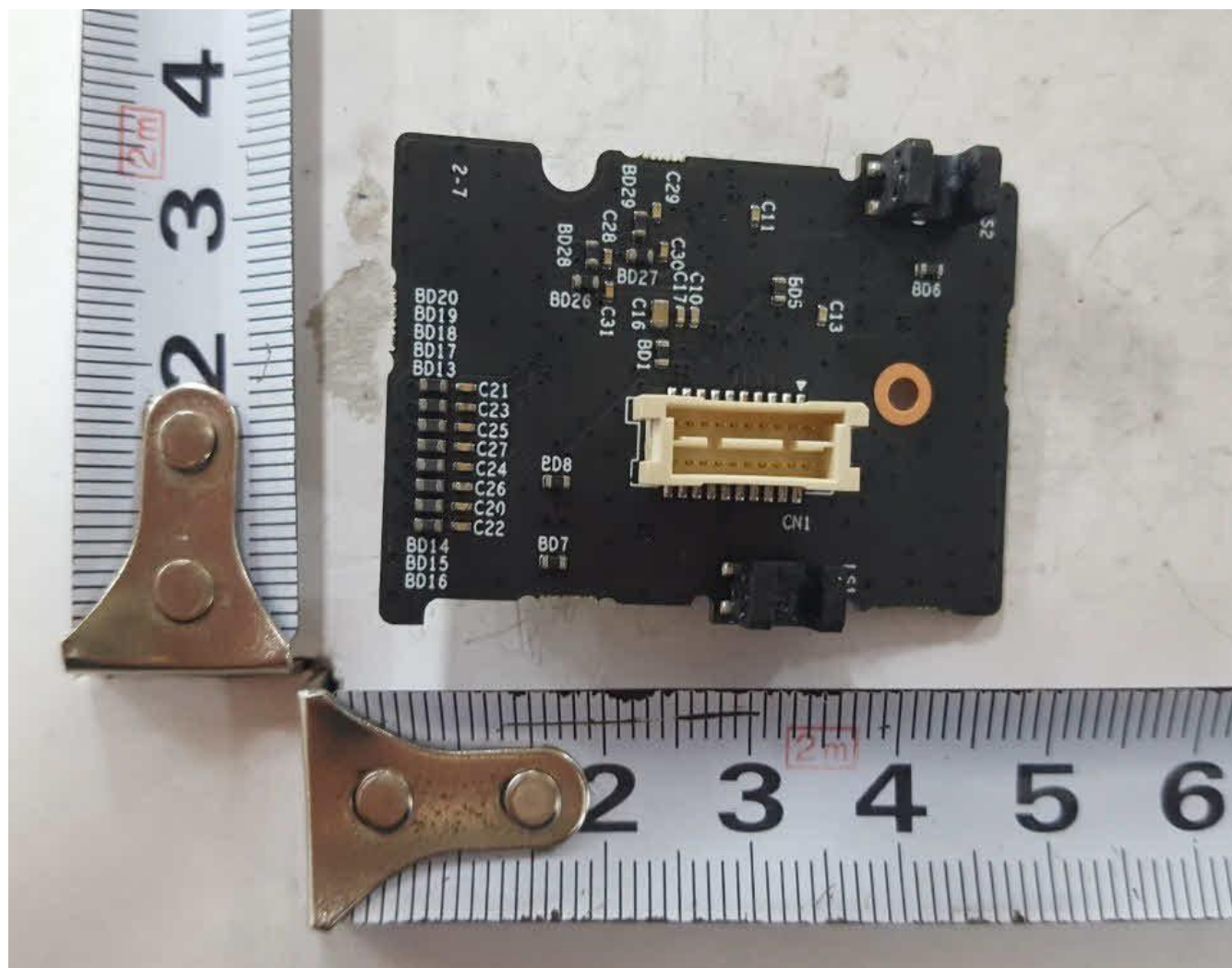


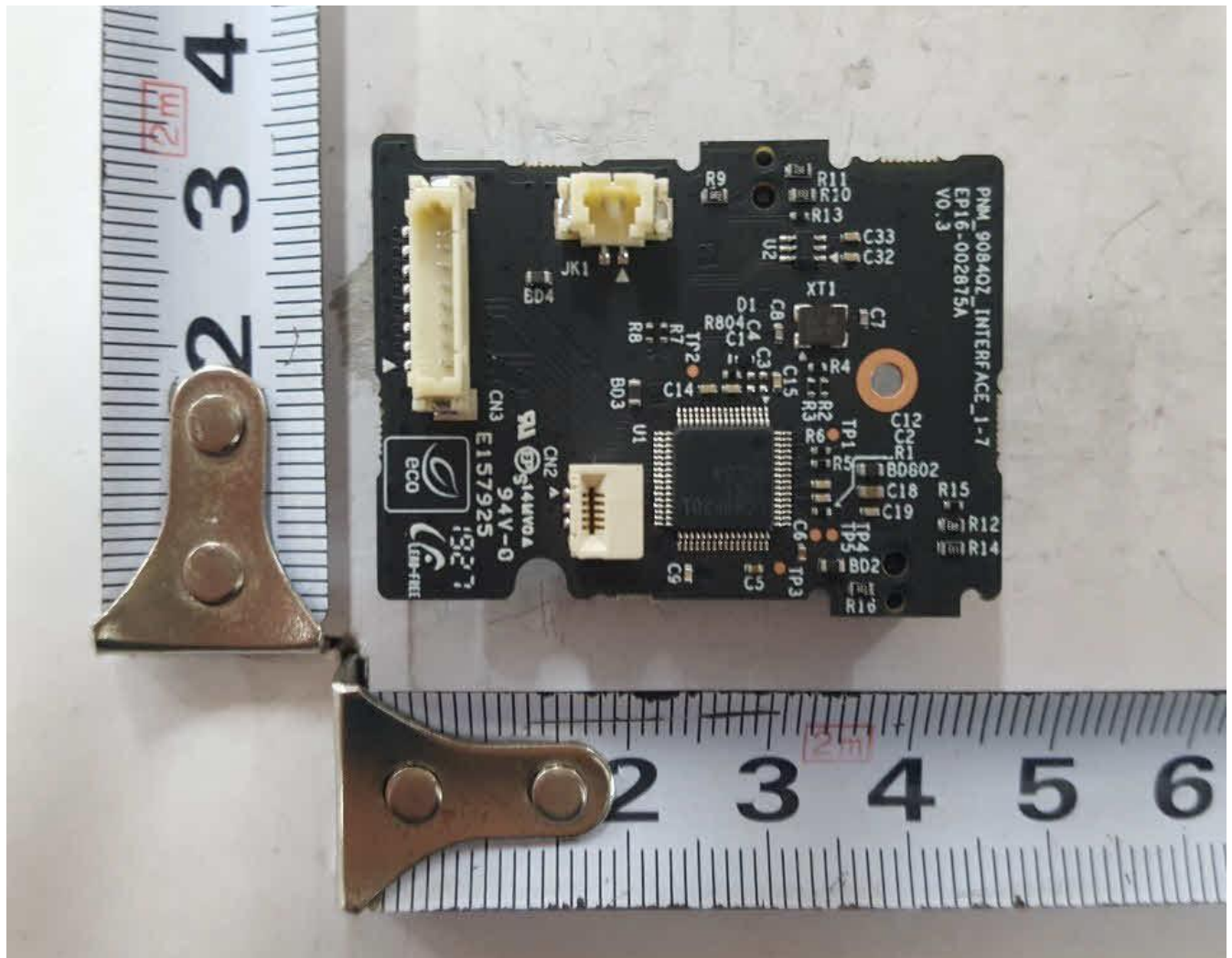


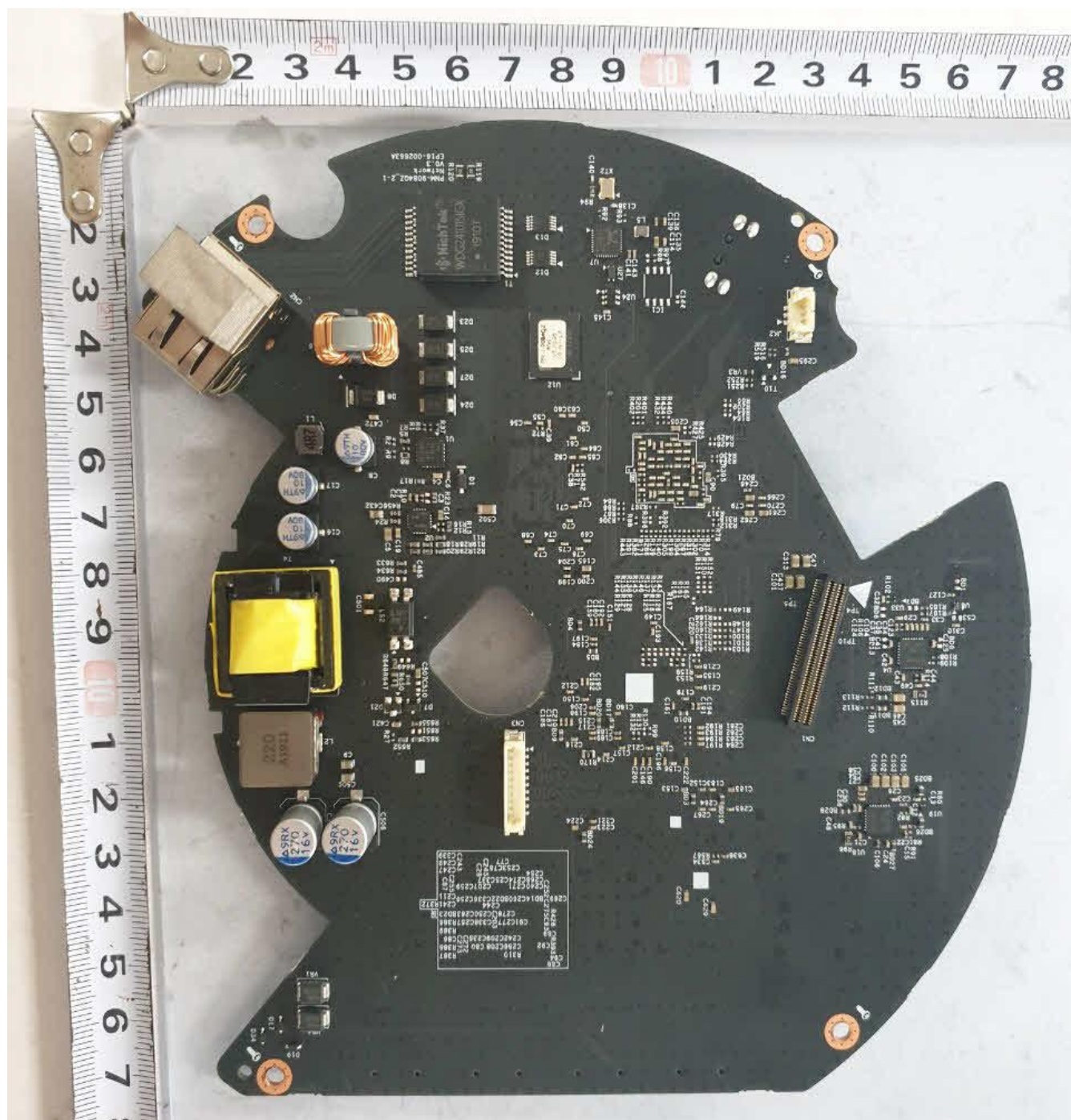


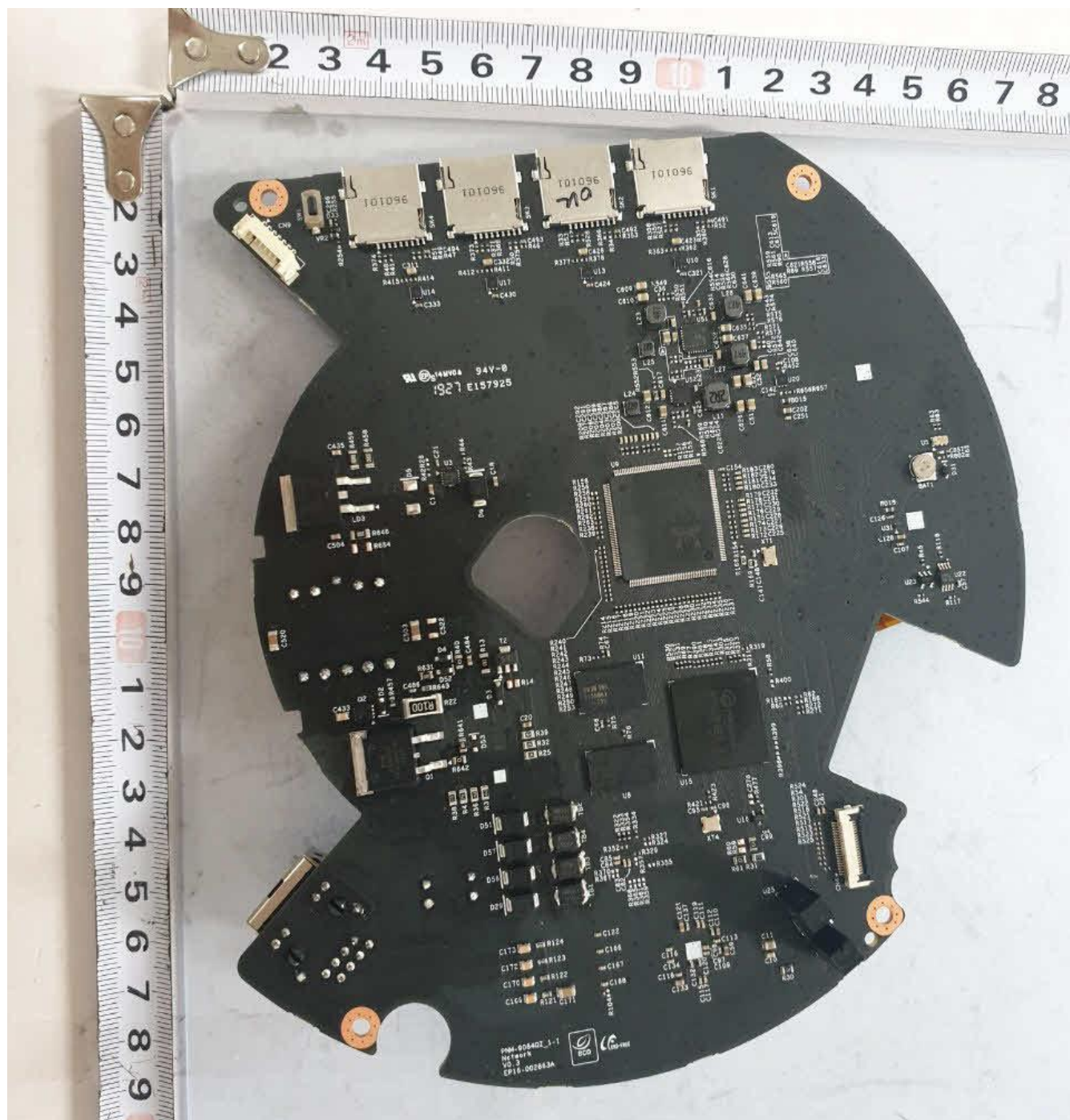




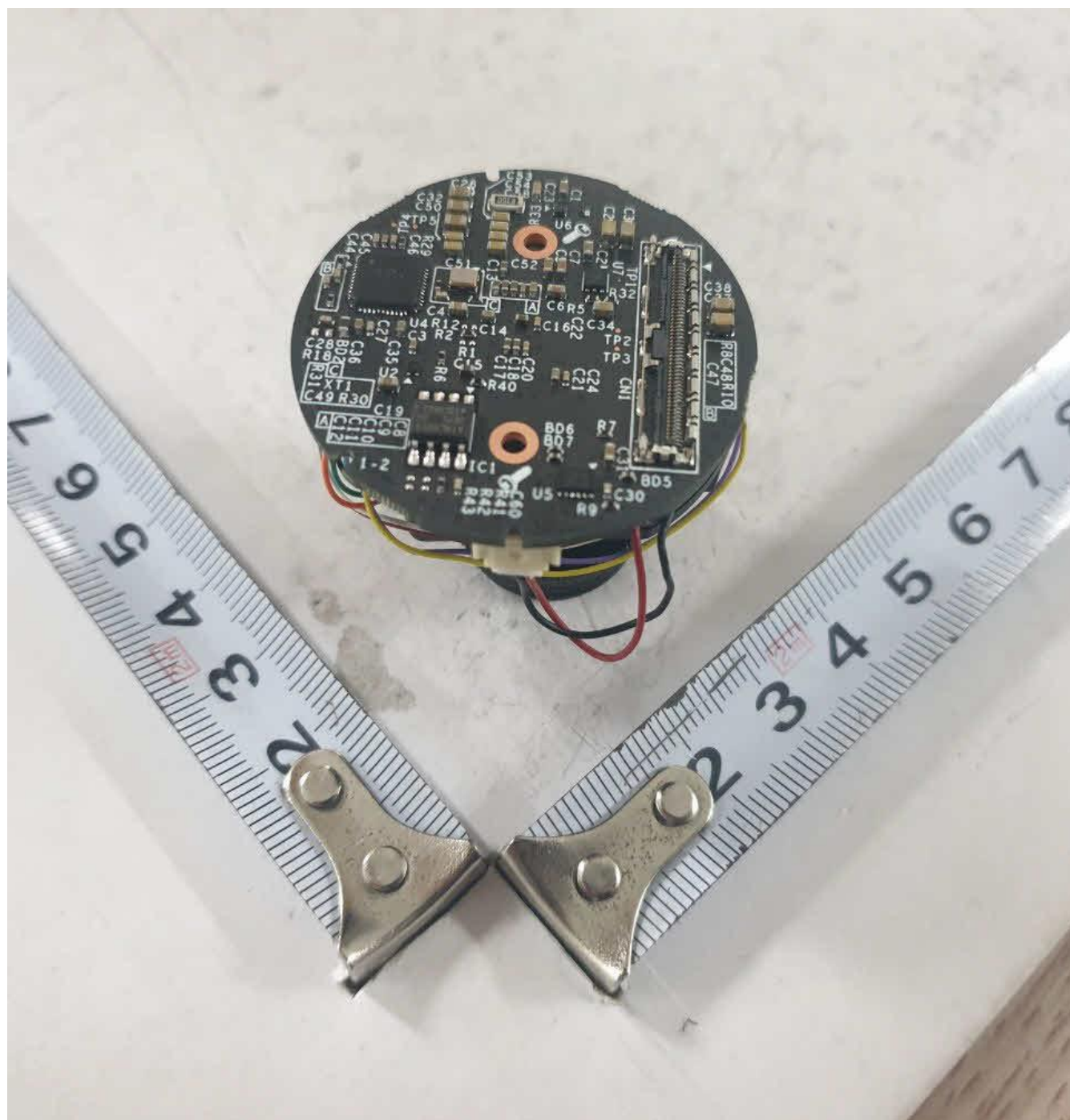












overview

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean the contaminated area on the product surface with a soft, dry cloth or a damp cloth.
(Do not use a detergent or cosmetic products that contain alcohol, solvents or surfactants or oil constituents as they may deform or cause damage to the product.)
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/ accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/ apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. This product is intended to be supplied by a Listed Power Supply Unit marked "Class 2" or "LPS" and rated from PoE(55 Vdc), 0.6 A.
16. This product is intended to be supplied by isolation power.
17. If you use excessive force when installing the product, the camera may be damaged and malfunction. If you forcibly install the product using non-compliant tools, the product may be damaged.
18. Do not install the product in a place where chemical substances or oil mist exists or may be generated. As edible oils such as soybean oil may damage or warp the product, do not install the product in the kitchen or near the kitchen table.
This may cause damage to the product.
19. When installing the product, be careful not to allow the surface of the product to be stained with chemical substance.
Some chemical solvents such as cleaner or adhesives may cause serious damage to the product's surface.
20. If you install/disassemble the product in a manner that has not been recommended, the production functions/ performance may not be guaranteed.
Install the product by referring to "Installation & connection" in the user manual.
21. Installing or using the product in water can cause serious damage to the product.



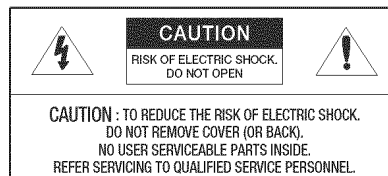
WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECT THROUGH THE VENTILATION GRILLS OR OTHER OPENINGS ON THE EQUIPMENT.

Apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

To prevent injury, this apparatus must be securely attached to the Wall/ceiling in accordance with the installation instructions.

CAUTION



EXPLANATION OF GRAPHICAL SYMBOLS



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

overview

Class I construction

An apparatus with CLASS I construction shall be connected to a MAINS socket outlet with a protective earthing connection.

Battery

Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like.

Disconnection Device

Disconnect the main plug from the apparatus, if it's defected. And please call a repair man in your location.

When used outside of the U.S., it may be used HAR code with fittings of an approved agency is employed.

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

ATTENTION

IL Y A RISQUE D'EXPLOSION SI LA BATTERIE EST REMPLACÉE PAR UNE BATTERIE DE TYPE INCORRECT.

METTRE AU REBUT LES BATTERIES USAGÉES CONFORMÉMENT AUX INSTRUCTIONS.

These servicing instructions are for use by qualified service personnel only.

To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

Please use the input power with just one camera and other devices must not be connected.

The ITE is to be connected only to PoE networks without routing to the outside plant.

The wired LAN hub providing power over the Ethernet (PoE) in accordance with IEEE 802.3 shall be a UL Listed device with the output evaluated as a Limited Power Source as defined in UL60950-1.

Unit is intended for installation in a Network Environment 0 as defined in IEC TR 62102. As such, associated Ethernet wiring shall be limited to inside the building.

Please read the following recommended safety precautions carefully.

- Do not place this apparatus on an uneven surface.
- Do not install on a surface where it is exposed to direct sunlight, near heating equipment or heavy cold area.
- Do not place this apparatus near conductive material.
- Do not attempt to service this apparatus yourself.
- Do not place a glass of water on the product.
- Do not install near any magnetic sources.
- Do not block any ventilation openings.
- Do not place heavy items on the product.
- Please wear protective gloves when installing/removing the camera.
The high temperature of the product surface may cause a burn.
- Do not adjust or move the lens directly with your hands. Doing so could damage the lens or degrade its performance.
- The life expectancy of driving the lens motor is 200 rotations.

User's Manual is a guidance book for how to use the products.

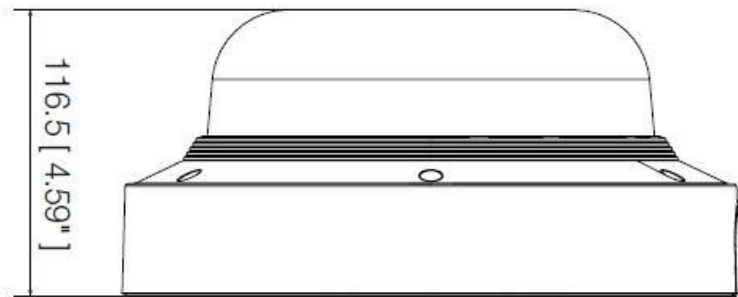
The meaning of the symbols are shown below.

- Reference : In case of providing information for helping of product's usages
 - Notice : If there's any possibility to occur any damages for the goods and human caused by not following the instruction
- ※ Please read this manual for the safety before using of goods and keep it in the safe place.

PRODUCT OVERVIEW

PNM-9084QZ

Unit : mm [inch]



Approval Sheet

Customer : HANWHA TECHWIN

Item : TRANSFORMER

Part No. : ASTEE20-12R0281

**Customer
Part No. : EP23-001032**

Date : 2019. 07. 18.

Approved :

Reference :



SAMWHA TECOM Co.,Ltd.

854-5 Sambaek-Ro, Baekam-Myun, Cheoin-Ku, Yongin-City,
Kyunggi-Do, Korea

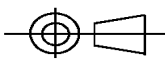
Tel : (031)334-9631 Fax : (031)332-8122

E-mail : tecom@samwha.com

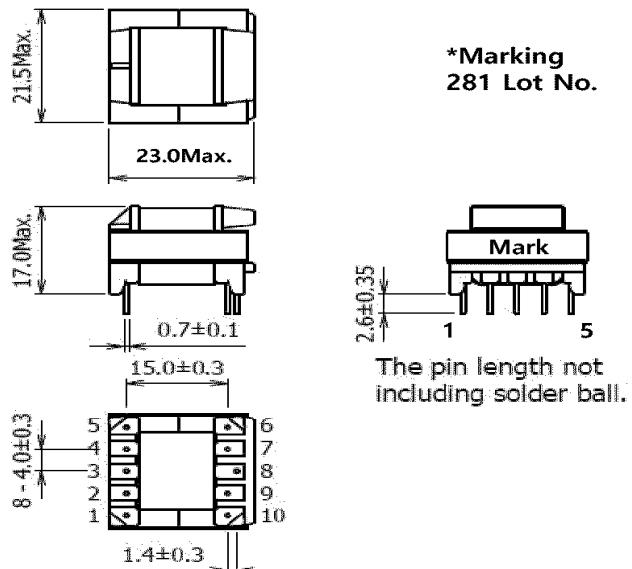
www.samwha.com



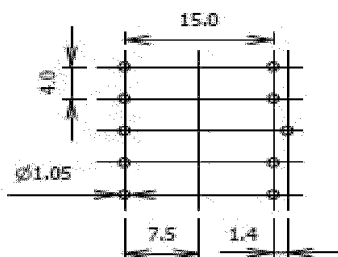
Record of revisions							
Rev. No.	Rev. Date	Rev. Contents	Reason of Rev.	Marking Method			
0	2019. 07. 18.	Issued	-	-			

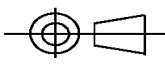
Des. by	Che. by	Ins. by	App. by	Scale	Unit	Customer	HANWHA TECHWIN
S.H KIM	S.H LEE	B.H CHUN	S.K LEE	N/A	mm	Item	TRANSFORMER
				THIRD ANGLE PROJECT 		Part No.	EP23-001032 (ASTE20-12R0281)
R & D Center						STDN	-

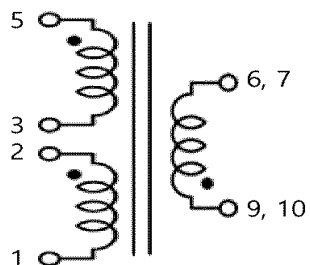
1-1. Dimension. [mm]



1-2. Suggested pad lay out.



Des. by	Che. by	Ins. by	App. by	Scale	Unit	Customer	HANWHA TECHWIN
S.H KIM	S.H LEE	B.H CHUN	S.K LEE	N/A	mm	Item	TRANSFORMER
R & D Center				THIRD ANGLE PROJECT 		Part No.	EP23-001032 (ASTEE20-12R0281)
						STDN	-

2-1 Winding Schematic.

* (●) Dot mark is winding start.

2-2 Winding Specification.

NO	BARRIER		TERMINAL				WIRE	Ts	권선방법	INSULATION		
	Pri./Sec.		S		F					재질	T/W	Ts
1	2	2	5		3		1UEW 0.25ØX3	14	2Layer Solenoid	P.E	0.025t/12.0mm	1
2	-	-	9	10	6	7	1UEW 0.40ØX4	10	2Layer Solenoid	P.E	0.025t/12.0mm	2
3	2	2	5		3		1UEW 0.25ØX3	14	2Layer Solenoid	P.E	0.025t/12.0mm	1
4	3	-	2		1		1UEW 0.20Ø	8	1Layer Solenoid	P.E	0.025t/12.0mm	2
Core Round Tape : 0.025t/6.0mm, 3Ts												

Core Round Tape : 0.025t/6.0mm, 3Ts

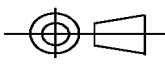
Des. by	Che. by	Ins. by	App. by	Scale	Unit	Customer	HANWHA TECHWIN
S.H KIM	S.H LEE	B.H CHUN	S.K LEE	N/A	mm	Item	TRANSFORMER
R & D Center				THIRD ANGLE PROJECT 		Part No.	EP23-001032 (ASTEE20-12R0281)
						STDN	-

3. Electrical Characteristics

No	Item	Terminal	Spec	Remarks
1	Inductance	5 - 3	280 uH $\pm$ 30%	HP-4284A LCR Meter 100KHz, 1.0Vrms
2	Leakage Inductance	5 - 3 (6,7,9,10 short)	1.5 uH Max.	
3	D.C Resistance	5 - 3	42.0 m Ω Max.	Hioki 3220 m Ω Hi-tester or eqv.
4	Withstanding Voltage (C.C=10mA)	Pri. - Sec. Pri. Sec. - Core	AC 0.5KV(rms) 2~3sec	Puncture Tester TOS-8750 or eqv.
5	Insulation Resistance	Coil - Core	100M Ω Min at DC 500V.	Mega Ohm Meter TOS-8750 or eqv.

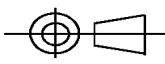
※ Note.

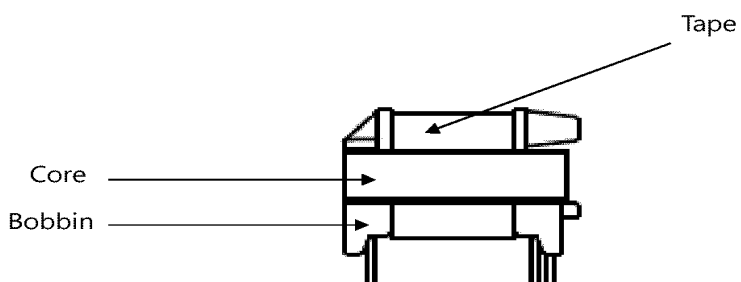
1. Test conditions of Electrical characteristics : 23°C ambient.
2. Operating temperature range -40°C to +105°C
3. Storage temperature range -40°C to +105°C

Des. by	Che. by	Ins. by	App. by	Scale	Unit	Customer	HANWHA TECHWIN
S.H KIM	S.H LEE	B.H CHUN	S.K LEE	N/A	mm	Item	TRANSFORMER
R & D Center				THIRD ANGLE PROJECT 		Part No.	EP23-001032 (ASTEE20-12R0281)
						STDN	-

4. Reliability test condition

No.	Item	Test Condition	Specification	Test Equipment
1	High Temperature	105°C, 96 Hours.	* Inductance change within $\pm 15\%$ * No Crack & Broken	KATO Inc. SSE-44CI-A
2	Low Temperature	-40°C, 96 Hours.	* Inductance change within $\pm 15\%$ * No Crack & Broken	KATO Inc. SSE-44CI-A
3	Humidity	40 $\pm$ 2°C 90% 96 Hours.	* Inductance change within $\pm 15\%$ * No Crack & Broken	KATO Inc. SSE-44CI-A
4	Vibration	vibration for 2hours in each of three orientations at sweep vibration 10 to 55 to 10Hz with 1.5mm P-P amplitude	* Inductance change within $\pm 15\%$	DSA-VT1
5	Resistance to soldering heat	Solder temperature : 260 $\pm$ 5°C Duration : 10 $\pm$ 2sec	* No mechanical defect * Inductance change within $\pm 15\%$	OT-208071

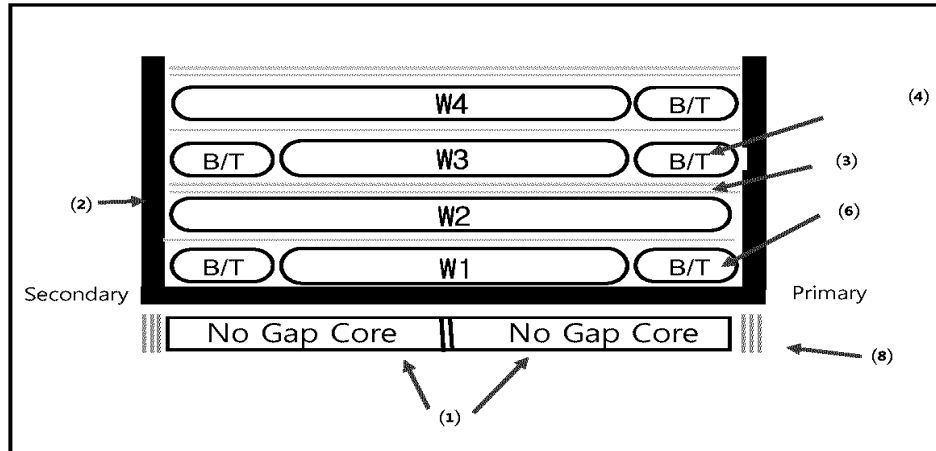
Des. by	Che. by	Ins. by	App. by	Scale	Unit	Customer	HANWHA TECHWIN
S.H KIM	S.H LEE	B.H CHUN	S.K LEE	N/A	mm	Item	TRANSFORMER
R & D Center				THIRD ANGLE PROJECT 		Part No.	EP23-001032 (ASTEE20-12R0281)
						STDN	-

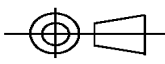
5. Material List.

No.	Parts Name	Material	Type	Manufacturer	UL Yellow Card
1	Core	Ferrite, Mn-Zn	EE2020	AnHui Hualin Magnetic Samwha Electronics Ruyuan Dongyangguang	-
2	Bobbin	Phenolic	EE2020H-C 10P	Sumitomo Bakelite Hexion GmbH Chang Chun Plastics	E41429 E61040 E59481
3	Tape	Polyester	DTS-204 , 6315 0.025t/6.0mm(Yellow) 0.025t/12.0mm(Yellow)	Duck Sung Hitech Teraoka Seisakusho	E105147 E56086
4	Wire	Copper	1UEW 0.20Ø, 0.25Ø, 0.40Ø	PT Ewindo	E228267 E210918
5	Barrier Tape	Polyester	H-5673 2.0mm, 3.0mm	Tae Hwa Industrial	E92677
6	Solder	Solder BAR	LF-120	PT.Supra sukses trinusa	-
7	Varnish	Epoxy	DVB-2085(C)	Noroo	-

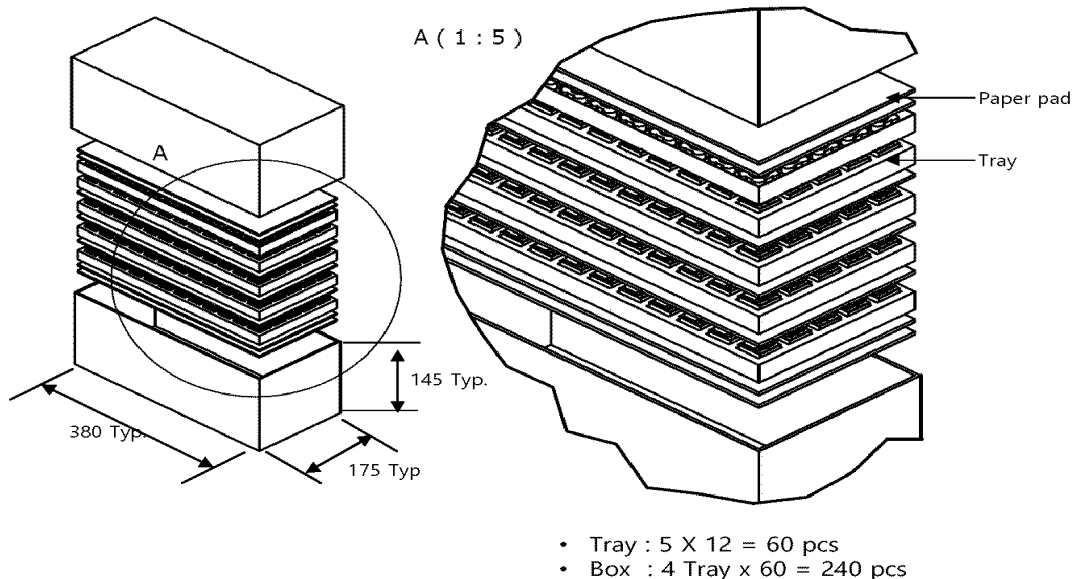
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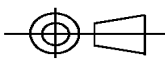
6. Internal Construction



Des. by	Che. by	Ins. by	App. by	Scale	Unit	Customer	HANWHA TECHWIN
S.H KIM	S.H LEE	B.H CHUN	S.K LEE	N/A	mm	Item	TRANSFORMER
R & D Center				THIRD ANGLE PROJECT 		Part No.	EP23-001032 (ASTEE20-12R0281)
						STDN	-

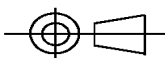
7. Packing Spec.



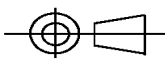
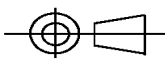
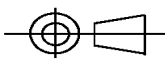
Des. by	Che. by	Ins. by	App. by	Scale	Unit	Customer	HANWHA TECHWIN
S.H KIM	S.H LEE	B.H CHUN	S.K LEE	N/A	mm	Item	TRANSFORMER
R & D Center				THIRD ANGLE PROJECT		Part No.	EP23-001032 (ASTEE20-12R0281)
						STDN	-

8. Precautions.

- When use the products, be careful to mentioned below for safety using.
- Be careful to stored conditions(normal temperature, normal humidity) when the products are used.
- This product is intended for commercial, non-military applications and should be used only in accordance with these specifications.
- Do not use dropped product. If the product suffered mechanical stress, electrical characteristics may become poor
- Do not press over 0.1kgf on the surface of product
- The products may have defects by excessive bending stress or scratch. So be careful to setup of machine.
- Comply with the specifications for rework on soldering after being mounted, excessive heating may result in short circuits, degradation, reliability, etc.
- As the product temperature rises due to self-heating, the margin must be taken into account.
- Do not exceed in operating conditions set forth in these specifications.
- Do not use this product in a corrosive environment. (gas, salt, acid, alkaline, etc.)

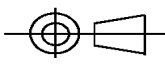
Des. by	Che. by	Ins. by	App. by	Scale	Unit	Customer	HANWHA TECHWIN
S.H KIM	S.H LEE	B.H CHUN	S.K LEE	N/A	mm	Item	TRANSFORMER
R & D Center				THIRD ANGLE PROJECT 		Part No.	EP23-001032 (ASTE20-12R0281)
						STDN	-

9. UL Yellow Card(1)

*YELLOW CARD																																																															
Bobbin (1)	Component - Plastics (guide info) E41429 SUMITOMO BAKELITE CO LTD 5-8 HIGASHI-SHINAGAWA 2-CHOME, SHINAGAWA-KU TOKYO 140-0002 JP PM-9820 Phenolic (PF) "Sumiken", furnished as pellets, granular material <table border="1"> <thead> <tr> <th>Color</th> <th>Min. Thk (mm)</th> <th>Flame Class</th> <th>HWI</th> <th>HAI</th> <th>RTI Elec</th> <th>RTI Imp</th> <th>RTI Str</th> </tr> </thead> <tbody> <tr> <td>BK</td> <td>0.16</td> <td>V-0</td> <td>-</td> <td>-</td> <td>150</td> <td>150</td> <td>150</td> </tr> <tr> <td>BK, BN</td> <td>0.18</td> <td>V-0</td> <td>-</td> <td>-</td> <td>150</td> <td>150</td> <td>150</td> </tr> <tr> <td></td> <td>0.51 - 0.69</td> <td>V-0</td> <td>3</td> <td>1</td> <td>150</td> <td>150</td> <td>150</td> </tr> <tr> <td></td> <td>0.70</td> <td>V-0</td> <td>1</td> <td>2</td> <td>150</td> <td>150</td> <td>150</td> </tr> <tr> <td></td> <td>1.5</td> <td>V-0</td> <td>0</td> <td>2</td> <td>150</td> <td>150</td> <td>150</td> </tr> <tr> <td></td> <td>3.0</td> <td>V-0</td> <td>0</td> <td>2</td> <td>150</td> <td>150</td> <td>150</td> </tr> </tbody> </table> Comparative Tracking Index (CTI): 3 Dielectric Strength (kV/mm): 14 High-Voltage Arc Tracking Rate (HVTR): 0 Dimensional Stability (%): - Inclined Plane Tracking (IPT) kV: - Volume Resistivity (10⁹ ohm-cm): 11 High Volt. Low Current Arc Resis (D495): 5 ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL. Report Date: 1997-11-03 Last Revised: 2014-02-24 © 2017 UL LLC						Color	Min. Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str	BK	0.16	V-0	-	-	150	150	150	BK, BN	0.18	V-0	-	-	150	150	150		0.51 - 0.69	V-0	3	1	150	150	150		0.70	V-0	1	2	150	150	150		1.5	V-0	0	2	150	150	150		3.0	V-0	0	2	150	150	150	
	Color	Min. Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str																																																							
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	1.5	V-0	0	2	150	150	150																																																								
	3.0	V-0	0	2	150	150	150																																																								
Bobbin (2)	Component - Plastics (guide info) E61046 Hexlon GmbH Postfach 7164, Isertown 89069 DE PF2736(a)(b) Phenolic (PF) "Bakelite "R" <table border="1"> <thead> <tr> <th>Color</th> <th>Min Thk (mm)</th> <th>Flame Class</th> <th>HWI</th> <th>HAI</th> <th>RTI Elec</th> <th>RTI Imp</th> <th>RTI Str</th> </tr> </thead> <tbody> <tr> <td>BK</td> <td>0.46</td> <td>V-0</td> <td>0</td> <td>2</td> <td>150</td> <td>150</td> <td>150</td> </tr> <tr> <td>HC, GN, BK</td> <td>0.81</td> <td>V-0</td> <td>0</td> <td>2</td> <td>150</td> <td>150</td> <td>150</td> </tr> <tr> <td>ALL</td> <td>0.81</td> <td>V-1</td> <td>0</td> <td>2</td> <td>150</td> <td>150</td> <td>150</td> </tr> <tr> <td></td> <td>1.5</td> <td>V-0</td> <td>0</td> <td>2</td> <td>150</td> <td>150</td> <td>150</td> </tr> <tr> <td></td> <td>3.0</td> <td>V-0</td> <td>0</td> <td>2</td> <td>150</td> <td>150</td> <td>150</td> </tr> </tbody> </table> Comparative Tracking Index (CTI): 3 Dielectric Strength (kV/mm): - High-Voltage Arc Tracking Rate (HVTR): 0 Dimensional Stability (%): - Inclined Plane Tracking (IPT): - Volume Resistivity (10⁹ ohm-cm): - High Volt. Low Current Arc Resis (D495): 5 (a) - Optional Suffix "R" (b) - Grade designation may be followed by a four digit number representing color, P or S indicating type of molding, a single digit representing slight color variation. ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL. Report Date: 2004-03-20 Last Revised: 2008-01-09 © 2016 UL LLC						Color	Min Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str	BK	0.46	V-0	0	2	150	150	150	HC, GN, BK	0.81	V-0	0	2	150	150	150	ALL	0.81	V-1	0	2	150	150	150		1.5	V-0	0	2	150	150	150		3.0	V-0	0	2	150	150	150									
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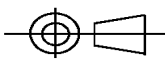
9. UL Yellow Card(2)

*YELLOW CARD																																							
Bobbin (3)	Component - Plastics E59481 Guide Information CHANG CHUN PLASTICS CO LTD 7TH FL, 301 SONGKIANG RD, TAIPEI 104 TW T375HF Phenolic Molding Compound (PMC) "LONGLITE", furnished as pellets, granular material, or powder <table border="1"> <thead> <tr> <th>Color</th> <th>Min. Thk (mm)</th> <th>Flame Class</th> <th>HWI</th> <th>HAI</th> <th>RTI Elec</th> <th>RTI Imp</th> <th>RTI Str</th> </tr> </thead> <tbody> <tr> <td>BK</td> <td>0.43</td> <td>V-0</td> <td>0</td> <td>0</td> <td>150</td> <td>150</td> <td>150</td> </tr> <tr> <td></td> <td>0.75</td> <td>V-0</td> <td>0</td> <td>0</td> <td>150</td> <td>150</td> <td>150</td> </tr> <tr> <td></td> <td>3.2</td> <td>V-0</td> <td>0</td> <td>0</td> <td>150</td> <td>150</td> <td>150</td> </tr> </tbody> </table> Comparative Tracking Index (CTI): 3 Dielectric Strength (kV/mm): 10 High-Voltage Arc Tracking Rate (HVTR): 3 Dimensional Stability (%): - Inclined Plane Tracking (IPT) kV: - Volume Resistivity (10¹² ohm-cm): 11 High Volt, Low Current Arc Resis (D495): 4 ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings, and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastics materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL. Report Date: 2006-03-29 Last Revised: 2014-03-21 © 2018 UL LLC 							Color	Min. Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str	BK	0.43	V-0	0	0	150	150	150		0.75	V-0	0	0	150	150	150		3.2	V-0	0	0	150	150	150
	Color	Min. Thk (mm)	Flame Class	HWI	HAI	RTI Elec	RTI Imp	RTI Str																															
BK	0.43	V-0	0	0	150	150	150																																
	0.75	V-0	0	0	150	150	150																																
	3.2	V-0	0	0	150	150	150																																
Wire (1)	Magnet Wire (guide info) E210910 CNI Electronics Co Ltd 207 Munirajongsan-gil, Munhak-eup, Wonju-si Gangwon-do 26302 KR UEW <table border="1"> <thead> <tr> <th>Mark Designation</th> <th>AWG Type</th> <th>Temp (°C)</th> <th>Base Coat</th> <th>Top Coat</th> <th>Bond Coat</th> </tr> </thead> <tbody> <tr> <td>UEW</td> <td>MW 75-C</td> <td>155</td> <td>Polyurethane</td> <td></td> <td></td> </tr> <tr> <td></td> <td>MW 75-C</td> <td>130(H)</td> <td>Polyurethane</td> <td></td> <td></td> </tr> </tbody> </table> [R] - The magnet wire may perform better than the rating reflects and may not be suitable for insulation system, varnish or end-product testing. Further consideration is necessary prior to its use in testing. Report Date: 2002-10-24 Last Revised: 2013-12-08 © 2018 UL LLC 							Mark Designation	AWG Type	Temp (°C)	Base Coat	Top Coat	Bond Coat	UEW	MW 75-C	155	Polyurethane				MW 75-C	130(H)	Polyurethane																
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UEW	MW 75-C	155	Polyurethane																																				
	MW 75-C	130(H)	Polyurethane																																				

Des. by	Che. by	Ins. by	App. by	Scale	Unit	Customer	HANWHA TECHWIN
S.H KIM	S.H LEE	B.H CHUN	S.K LEE	N/A	mm	Item	TRANSFORMER
R & D Center						Part No.	EP23-001032 (ASTEE20-12R0281)
						STDN	-

9. UL Yellow Card(3)

*YELLOW CARD																			
Wire (2)	UL Wire (guide info) E228267 P.T. EWINDO JL. CHANGKONGKORE BAWANG JAYA BARAT INDONESIA 4912517 UEW <table border="1"> <thead> <tr> <th>Mark Designation</th> <th>ANSI Type</th> <th>Temp (°C)</th> <th>Base Coat</th> <th>Top Coat</th> <th>Bond Coat</th> </tr> </thead> <tbody> <tr> <td>UEW</td> <td>MM 75-C</td> <td>65</td> <td>Polyurethane</td> <td></td> <td></td> </tr> <tr> <td></td> <td>MM 75-C</td> <td>130(4)</td> <td>Polyurethane</td> <td></td> <td></td> </tr> </tbody> </table> [4] - The inspector will perform better than the rating reflects and may not be suitable for insulation system, resistor or end-product testing. Further consideration is necessary prior to its use in testing. Report Date: 2015-01-28 Last Revised: 2013-10-21 © 2015 UL LLC	Mark Designation	ANSI Type	Temp (°C)	Base Coat	Top Coat	Bond Coat	UEW	MM 75-C	65	Polyurethane				MM 75-C	130(4)	Polyurethane		
Mark Designation	ANSI Type	Temp (°C)	Base Coat	Top Coat	Bond Coat														
UEW	MM 75-C	65	Polyurethane																
	MM 75-C	130(4)	Polyurethane																
Tape (1)	Insulating Tape (guide info) E105147 DUCK SUNG HITECH CO. LTD 225-2 Shinmug-Ri Beoun-Myeon, Anseong-Si Gyeonggi-Do 450-850 KR DTS-204 (e) PET film insulating tapes with acrylic adhesives <table border="1"> <thead> <tr> <th>Color</th> <th>Temp (°C)</th> <th>Flame Retardant*</th> <th>Sunlight Resistant*</th> <th>Cold Resistant*</th> </tr> </thead> <tbody> <tr> <td>All and clear</td> <td>130</td> <td>No</td> <td>No</td> <td>No</td> </tr> </tbody> </table> May be marked: "Film side CTI Performance Level Category PL-C2 Voltage 250, per UL 746A/ASTM D 3638," and/or "Adhesive side CTI Performance Level Category PL-C0 Voltage 600, per (e) - UL 746A/ASTM D 3638" or equivalent. * - Complies with "Flame Retardant" and/or "Cold Resistant" and/or "Sunlight Resistant" requirements if authorized in the table above and when so marked. Report Date: 2014-05-15 Last Revised: 2014-02-27 © 2014 UL LLC	Color	Temp (°C)	Flame Retardant*	Sunlight Resistant*	Cold Resistant*	All and clear	130	No	No	No								
Color	Temp (°C)	Flame Retardant*	Sunlight Resistant*	Cold Resistant*															
All and clear	130	No	No	No															

Des. by	Che. by	Ins. by	App. by	Scale	Unit	Customer	HANWHA TECHWIN
S.H KIM	S.H LEE	B.H CHUN	S.K LEE	N/A	mm	Item	TRANSFORMER
R & D Center				THIRD ANGLE PROJECT 		Part No.	EP23-001032 (ASTEE20-12R0281)
						STDN	-

9. UL Yellow Card(4)

*YELLOW CARD																	
Tape (2)	Insulating Tape (guide info) E56086 TERAOKA SEISAKUSHO CO.LTD 4-22 HIROMACHI 1-CHOME, SHINAGAWA-KU, TOKYO 140-8711 J.P 631S #25 (a) Polyester film tapes with thermosetting acrylic adhesive <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Color</th> <th>Temp (°C)</th> <th>Flame Retardant+</th> <th>Sunlight Resistant+</th> <th>Cold Resistant+</th> </tr> </thead> <tbody> <tr> <td>All</td> <td>130</td> <td>No</td> <td>No</td> <td>No</td> </tr> </tbody> </table> May be marked "Comparative Tracking Index (CTI) performance level on film and adhesive side per UL 746A/ASTM3636, indicates PLC=0; CTI equal to or greater (a) - than 600V" or equivalent. + - Complies with "Flame Retardant" and/or "Cold Resistant" and/or "Sunlight Resistant" requirements if authorized in the table above and when so marked. Report Date: 1998-07-24 © 2016 UL LLC							Color	Temp (°C)	Flame Retardant+	Sunlight Resistant+	Cold Resistant+	All	130	No	No	No
Color	Temp (°C)	Flame Retardant+	Sunlight Resistant+	Cold Resistant+													
All	130	No	No	No													
Barrier Tape	Insulating Tape Guide Information E92677 TAE HWA INDUSTRIAL CO LTD 31-22 Gimpo-Daero 2669Beon-Gil, Wolgot-Myeon, Gimpo-Si Gyeonggi-Do 415-875 KR H-5673N Flame retardant polyester PET film insulating tapes with non-woven polypropylene fiber reinforcement and acrylic adhesive <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Color</th> <th>Temp (°C)</th> <th>Flame Retardant+</th> <th>Sunlight Resistant+</th> <th>Cold Resistant+</th> </tr> </thead> <tbody> <tr> <td>White</td> <td>-</td> <td>Yes</td> <td>No</td> <td>No</td> </tr> </tbody> </table> + - Complies with "Flame Retardant" and/or "Cold Resistant" and/or "Sunlight Resistant" requirements if authorized in the table above and when so marked. Report Date: 1984-11-01 © 2018 UL LLC							Color	Temp (°C)	Flame Retardant+	Sunlight Resistant+	Cold Resistant+	White	-	Yes	No	No
Color	Temp (°C)	Flame Retardant+	Sunlight Resistant+	Cold Resistant+													
White	-	Yes	No	No													

Des. by	Che. by	Ins. by	App. by	Scale	Unit	Customer	HANWHA TECHWIN
S.H KIM	S.H LEE	B.H CHUN	S.K LEE	N/A	mm	Item	TRANSFORMER
R & D Center						Part No.	EP23-001032 (ASTEE20-12R0281)
						STDN	-



NETWORK CAMERA

MODEL: PNM-9084QZ

PoE (55V ) 0.6A

M/C: PNM-9084QZ/KUS

Fac. ID: D



제조년월 S/N: [제조번호]

MAC ADDRESS: XX-XX-XX-XX-XX-XX

CAN ICES-3(A)/NMB-3(A)

HANWHA TECHWIN CO.,LTD.

MADE IN KOREA



Project No. 4789162849
 Compliance
 Review
 Conducted by: _____

File E158873

Page 1

Printed Name

Signature

Date _____

Standard SCC Requirements and Guidance - Product Certification Body Accreditation Program Edition/ Revision Date 2016-04-06

Clause/Par. Reference and Construction Requirement	Comply			Comments/Measurements	Inst. ID No.
	Yes	No	N/A		
9.2.3 CBs shall include dual language safety labeling within their product certification requirements, if so required by the standard or by the authority having jurisdiction.					
The manufacturer has confirmed they have the ability to include English and French safety labeling exactly as specified in the product standard; or, if NOT specified in the product standard, the ability to include English and French safety labelling consisting of markings associated with the signal words DANGER, WARNING, and CAUTION when required.	X			The ability of the manufacturer to include these markings was verified by either (1) visual inspection of the markings on the actual product or (2) draft of labels that will be applied to the product or (3) written confirmation from the customer of the markings that will appear on the product. If the product standard provides the exact translation, the evidence must match the exact translation. If the product standard does NOT provide the exact translation, the evidence must simply include both the English and French text (no verification of translation is required).	N/A

Project No. 4789162849

File E158873

Page 2

Compliance

Review

Conducted by:

Date

Printed Name

Signature

Clause/Par. Reference and Construction Requirement	Comply			Comments/Measurements	Inst. ID No.
	Yes	No	N/A		
Manufacturer has a method to manage distribution of products, IF all products with the Canadian certification mark are NOT going to include the dual language.	X			Evaluation staff are to only verify that the manufacturer has a method to control distribution. Evaluation staff do not have to record the method of control nor are the evaluation staff expected to verify the effectiveness of the method of control. This requirement to verify that a method exists will be noted in the FUS Procedure. The UL Field Engineer will verify the method during surveillance. If the manufacturer is going to include the dual language on all products with the Canadian certification mark, then this item is N/A; no further action required.	N/A

Test Record

Test Record No. 1

1. Test result relate only to the items tested.

2. The manufacturer submitted representative production samples of NETWORK CAMERA, Model PNM-9084QZ.

3. Only the test listed were considered necessary.

The following tests were conducted:

Test	Testing Location/Comments
End Product Reference Page	
General Guidelines	
Input: Single-Phase (1.6.2)	
SELV Reliability Test Including Hazardous Voltage Measurements (2.2.2, 2.2.3, 2.2.4, Part 22 6.1)	
Determination of Working Voltage; Working Voltage Measurement (2.10.2)	
Loading - Wall and Ceiling Mounted Equipment (4.2.10)	
Battery (4.3.8)	
Heating (4.5.1, 1.4.12, 1.4.13)	
Component Failure (5.3.1, 5.3.4, 5.3.7)	

Test results are valid only for the tested equipment. These tests are considered representative of the products covered by this Test Report. The test methods and results of the above tests have been reviewed and found to be in accordance with the requirements in the Standard(s) referenced at the beginning of this Test Report.

The following supplements are provided as a part of this Test Record. NOTE: These supplements are only available to the Applicant via the CDA system.

<u>Type</u>	<u>Supplement Id</u>	<u>Description</u>
Attachment	2-01	Datasheet