




Product				
Mfr Item Number	Mfr Item Name	Version	Mfr Site	Date
TSV5221Q2T	AYNB*V522ACJ	A	Z6HA	2017-04-28
Amount		UoM	Unit type	ST ECOPACK Grade
8.07		mg	Each	ECOPACK® 3

Manufacturing information					
J-STD-020 MSL Rating	Classification Temp	Nbr of Reflow Cycles			
1	260	3			
bulk Solder Termination	Terminal Plating	Terminal Base Alloy			Comment
Not Applicable ; if coating is used o	Nickel/Palladium/Gold (Ni/Pd/Au)	Copper Alloy			

Package Designator	Size	Nbr of instances	Shape	
QFN	2x2x0.6	8	No lead	
Comment	UFSON 2x2x0.6 8 PITCH 0.5; MD valid for CP: TS3911Q2T.			

QueryList : ROHS directive 2011/65/EU _ July 2011	
Query	Response
Product(s) meets EU RoHS requirement without any exemptions	true
Product(s) meets EU RoHS requirements except lead in solder and this usage may qualify under the lead in solder '7b' exemption (other selected exemptions may apply)	false
Product(s) meets EU RoHS requirements by application of the selected exemption(s)	false
Product(s) does not meet EU RoHS requirements and is not under exemptions	false
Product(s) is obsolete, no information is available	false
Product(s) is unknown, no information is available	false
Exemption Id.	Description

QueryList : REACH-12th January 2017				
Query				Response
The product does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH				true
CategoryLevel_Name	CategoryLevel_Threshold	amount in product (mg)	Application	ppm in product

Material Composition Declaration						Mfr Item Name	AYNB*V522ACJ					
Homogeneous Material	Material Group	Mass	UoM	Level	Substance Category	Substance	CAS	Exempt	Mass	UoM	Concentration in homogeneous material (ppm)	Concentration in product (ppm)
Silicon die	Other inorganic materials	0.175	mg	supplier	Die	Silicon (Si)	7440-21-3		0.16	mg	914286	19827
Silicon die				supplier	metallization	Aluminium (Al)	7429-90-5		0.003	mg	17143	972
Silicon die				supplier	metallization	Titanium (Ti)	7440-32-6		0.001	mg	5714	124
Silicon die				supplier	metallization	Titanium Nitride (TiN)	25583-20-4		0.001	mg	5714	124
Silicon die				supplier	passivation	Silicon Nitride (SiN)	68034-42-4		0.001	mg	5714	124
Silicon die				supplier	passivation	Silicon Oxide(SiO2)	7631-86-9		0.005	mg	28571	620
Silicon die				supplier	passivation	PIX1 Gamma-butyrolactone	96-48-0		0.004	mg	22857	496
Leadframe	Copper and its alloy	2.12	mg	supplier	alloy	Copper (Cu)	7440-50-8		2.03	mg	957547	251549
Leadframe				supplier	alloy	Silicon (Si)	7440-21-3		0.011	mg	5189	1363
Leadframe				supplier	alloy	Nickel (Ni)	7440-02-0		0.074	mg	34906	9170
Leadframe				supplier	alloy	Magnesium (Mg)	7439-95-4		0.003	mg	1415	972
Leadframe				supplier	alloy	Iron (Fe)	7439-89-6		0.002	mg	943	248
Die attach	Other organic materials	0.035	mg	SUPPLIER	Epoxy	Aluminium oxide ( 20-35%)	1344-28-1		0.01	mg	285714	1239
Die attach				SUPPLIER	Epoxy	Diethylene glycol monoethyl ether acetate ( 2	112-15-2		0.014	mg	400000	1735
Die attach				SUPPLIER	Epoxy	Epoxy resin ( 1-10% )	25068-38-6		0.003	mg	85714	372
Die attach				SUPPLIER	Epoxy	Epoxy resin ( 10-30% )	Proprietary		0.007	mg	200000	867
Die attach				SUPPLIER	Epoxy	Aromatic amine ( 1-5% )	Proprietary		0.001	mg	28571	124
Bonding wire	Other inorganic materials	0.021	mg	SUPPLIER	Bonding Wire	Au	7440-57-5		0.021	mg	1000000	2602
Encapsulation	Other organic materials	5.719	mg	SUPPLIER	molding compound	Silica Fused (85~95%)	60676-86-0		5.358	mg	936877	663941
Encapsulation				SUPPLIER	molding compound	Epoxy Resin (1~5%)	Proprietary		0.172	mg	30075	21314
Encapsulation				SUPPLIER	molding compound	Phenol Resin (1~5%)	Proprietary		0.172	mg	30075	21314
Encapsulation				SUPPLIER	molding compound	Carbon Black (0.1~0.5%)	1333-86-4		0.017	mg	2973	2107