## **SIEMENS**

## **Data sheet**

6GT2810-2AE81-0AX3

product type designation

## Transponder RF630L (special variant)

SIMATIC RF630L (special variant) SmartLabel PET; 75x 20 mm; strongly adhesive on plastic ISO 18000-6C, EPC Class 1 Gen 2 Frequency 860 to 960 MHz, chip type NXP Ucode7XM+ EPC 448 Bit, user 2048-bit; Core diameter 76 mm 3500 units on one roll Minimum order quantity 7000 units .



Figure similar

operating frequency range / maximum  specific from the control of	suitability for operation	RF600
range / maximum  5 m; observe system manual RF600: overrange is possible, range is reader dependent: observe http://support.automation.siemens.com/WW/view/en/67384964  Protocol / with radio transmission  EPCglobal Class 1 Gen 2 / ISO 18000-63  transfer rate / with radio transmission / maximum  product feature / multitag-capable  Yes polarization  Linear  ectrical data  product component / backup battery  No  temory  type of memory  type of memory  type of memory organization  EPC memory 96 bit (12 byte) expandable up to 448 bit (56 byte), user memory  266 byte  TEPC memory 96 bit (12 byte) expandable up to 448 bit (56 byte), user memory  2048 bit (256 byte), TID memory 96 bit (12 byte)  maximum  1E+14  100000  data retention time / at ambient temperature < 40 °C / mot less than  data retention time / at ambient temperature < 40 °C / not less than  orpoperty of memory  type of transponder chip used  vechanical data  material  PET  color  white  andiral of transponder of reading to metal surfaces / recommended / minimum  min	adio frequencies	
dependent: observe http://support.automation.siemens.com/WW/view/en/67384964 protocol / with radio transmission	operating frequency	860 930 MHz
transfer rate / with radio transmission / maximum 320 kbit/s  yes  Linear  Lin	range / maximum	dependent: observe
product feature / multitag-capable polarization Linear    Linear	protocol / with radio transmission	EPCglobal Class 1 Gen 2 / ISO 18000-63
polarization Linear  lectrical data product component / backup battery  type of memory organization  number of read cycles / at ambient temperature < 40 °C / maximum  data retention time / at ambient temperature < 40 °C / not less than property of memory  type of memory  lock, unlock, kill, write protection, password protection  nypoetry of memory  type of memory organization  EPC memory 96 bit (12 byte) expandable up to 448 bit (56 byte), user memory 2048 bit (256 byte), TID memory 96 bit (12 byte)  100000  maximum  data retention time / at ambient temperature < 40 °C / maximum  data retention time / at ambient temperature < 40 °C / not less than  NXP UCODE 7xm-2K  rechanical data  material  PET  color  mounting distance / relating to metal surfaces / recommended / minimum  mbient conditions  ambient temperature  • during read/write access  • outside the read/write area  • during storage  ambient condition / for operation  Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes  protection class IP	transfer rate / with radio transmission / maximum	320 kbit/s
rectrical data  product component / backup battery  type of memory  type of memory organization  type of memory organization  mumber of read cycles / at ambient temperature < 40 °C / maximum  number of write cycles / at ambient temperature < 40 °C / maximum  number of write cycles / at ambient temperature < 40 °C / maximum  number of write cycles / at ambient temperature < 40 °C / maximum  number of write cycles / at ambient temperature < 40 °C / maximum  number of write cycles / at ambient temperature < 40 °C / mover of transported chip used  than  property of memory  type of transponder chip used  number of write cycles / at ambient temperature < 40 °C / not less  than  property of transponder chip used  number of transponder chip used  techanical data  material  pet octor  white  at a material  pet octor  white  at a material  color  white  a	product feature / multitag-capable	Yes
product component / backup battery  type of memory  type of memory  type of memory yorganization  EEPROM  256 byte  type of memory organization  EPC memory 96 bit (12 byte) expandable up to 448 bit (56 byte), user memory 2048 bit (256 byte), TID memory 96 bit (12 byte)  number of read cycles / at ambient temperature < 40 °C / maximum  number of write cycles / at ambient temperature < 40 °C / maximum  data retention time / at ambient temperature < 40 °C / not less than  property of memory  lock, unlock, kill, write protection, password protection  NXP UCODE 7xm-2K  techanical data  material  per orditions  ambient conditions  ambient temperature  during read/write access  during read/write access  during storage  ambient condition / for operation  Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient 40 °C to 120 °C for 90 minutes  protection class IP	polarization	Linear
type of memory  type of memory  storage capacity / of the user memory  type of memory organization  EPC memory 96 bit (12 byte) expandable up to 448 bit (56 byte), user memory 2048 bit (256 byte), TID memory 96 bit (12 byte)  number of read cycles / at ambient temperature < 40 °C / maximum  number of write cycles / at ambient temperature < 40 °C / maximum  data retention time / at ambient temperature < 40 °C / not less than  property of memory  type of transponder chip used  NXP UCODE 7xm-2K  techanical data  material  PET  color  mounting distance / relating to metal surfaces / recommended / minimum  moient conditions  ambient temperature  • during read/write access • outside the read/write area • during storage  ambient condition / for operation  Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes  protection class IP	lectrical data	
type of memory storage capacity / of the user memory type of memory organization  EPC memory 96 bit (12 byte) expandable up to 448 bit (56 byte), user memory 2048 bit (256 byte), TID memory 96 bit (12 byte)  number of read cycles / at ambient temperature < 40 °C / maximum number of write cycles / at ambient temperature < 40 °C / maximum  number of write cycles / at ambient temperature < 40 °C / maximum  data retention time / at ambient temperature < 40 °C / not less than  property of memory type of transponder chip used  NXP UCODE 7xm-2K  echanical data  material  PET  color  white  3 mm  mounting distance / relating to metal surfaces / recommended / minimum  mbient conditions  ambient temperature  • during read/write access  • outside the read/write area  • during storage  ambient condition / for operation  Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes  protection class IP	product component / backup battery	No
storage capacity / of the user memory type of memory organization  EPC memory 96 bit (12 byte) expandable up to 448 bit (56 byte), user memory 2048 bit (256 byte), TID memory 96 bit (12 byte)  1E+14  1E+14  100000  1E+14  100000  100000  100000  100000  1000000	nemory	
type of memory organization  EPC memory 96 bit (12 byte) expandable up to 448 bit (56 byte), user memory 2048 bit (256 byte), TID memory 96 bit (12 byte)  maximum  number of read cycles / at ambient temperature < 40 °C / maximum  number of write cycles / at ambient temperature < 40 °C / maximum  data retention time / at ambient temperature < 40 °C / not less than property of memory  type of transponder chip used  material  pet T  color  mounting distance / relating to metal surfaces / recommended / minimum  mbient conditions  ambient temperature  during read/write access  outside the read/write area  during storage  5 25 °C  ambient condition / for operation  Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes  protection class IP	type of memory	EEPROM
2048 bit (256 byte), TID memory 96 bit (12 byte)  number of read cycles / at ambient temperature < 40 °C / maximum  number of write cycles / at ambient temperature < 40 °C / maximum  data retention time / at ambient temperature < 40 °C / not less than  property of memory  type of transponder chip used  numerial  material  pet mounting distance / relating to metal surfaces / recommended / minimum  mbient conditions  ambient temperature  during read/write access  outside the read/write area  during storage  ambient condition / for operation  Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes  protection class IP	storage capacity / of the user memory	256 byte
maximum number of write cycles / at ambient temperature < 40 °C / maximum  data retention time / at ambient temperature < 40 °C / not less than  property of memory type of transponder chip used  material material mounting distance / relating to metal surfaces / recommended / minimum  mbient conditions  ambient temperature  during read/write access outside the read/write area during storage  ambient condition / for operation  Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes  protection class IP  100000  20 a  1000000	type of memory organization	EPC memory 96 bit (12 byte) expandable up to 448 bit (56 byte), user memory 2048 bit (256 byte), TID memory 96 bit (12 byte)
maximum  data retention time / at ambient temperature < 40 °C / not less than  property of memory lock, unlock, kill, write protection, password protection type of transponder chip used NXP UCODE 7xm-2K  echanical data  material PET  color white  mounting distance / relating to metal surfaces / recommended / minimum  mbient conditions  ambient temperature  • during read/write access • outside the read/write area • during storage  ambient condition / for operation  Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes  protection class IP  10ck, unlock, kill, write protection, password protection  NXP UCODE 7xm-2K  PET  color  white  3 mm  3 mm  4 mm  4 minimum  5 c c c c c c c c c c c c c c c c c c	number of read cycles / at ambient temperature < 40 $^{\circ}\text{C}$ / maximum	1E+14
than  property of memory  type of transponder chip used  NXP UCODE 7xm-2K  procentated ata  material  color  mounting distance / relating to metal surfaces / recommended / minimum  mbient conditions  ambient temperature  • during read/write access  • outside the read/write area  • during storage  ambient condition / for operation  Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes  protection class IP  I lock, unlock, kill, write protection, password protection  NXP UCODE 7xm-2K  PET  white  3 mm  mbient  4 material  2	number of write cycles / at ambient temperature < 40 $^{\circ}\text{C}$ / maximum	100000
type of transponder chip used    NXP UCODE 7xm-2K	data retention time / at ambient temperature < 40 $^{\circ}\text{C}$ / not less than	20 a
material PET  color white  mounting distance / relating to metal surfaces / recommended / minimum  mbient conditions  ambient temperature  • during read/write access • outside the read/write area • during storage  ambient condition / for operation  Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes  protection class IP  IP67, when adhered	property of memory	lock, unlock, kill, write protection, password protection
material PET color white mounting distance / relating to metal surfaces / recommended / minimum mbient conditions ambient temperature	type of transponder chip used	NXP UCODE 7xm-2K
color  mounting distance / relating to metal surfaces / recommended / 3 mm  mbient conditions  ambient temperature  • during read/write access • outside the read/write area • during storage  ambient condition / for operation  Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes  protection class IP  IP67, when adhered	nechanical data	
mounting distance / relating to metal surfaces / recommended / minimum  mbient conditions  ambient temperature  • during read/write access • outside the read/write area • during storage  ambient condition / for operation  Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes  protection class IP  IP67, when adhered	material	PET
minimum  mbient conditions  ambient temperature  • during read/write access • outside the read/write area • during storage • during storage  5 25 °C  ambient condition / for operation  Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes  protection class IP  IP67, when adhered	color	white
ambient temperature  • during read/write access  • outside the read/write area  • during storage  • during storage  5 25 °C  ambient condition / for operation  Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes  protection class IP  IP67, when adhered	mounting distance / relating to metal surfaces / recommended / minimum	3 mm
<ul> <li>during read/write access</li> <li>outside the read/write area</li> <li>during storage</li> <li>25 +85 °C</li> <li>during storage</li> <li>25 °C</li> <li>ambient condition / for operation</li> <li>Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes</li> <li>protection class IP</li> <li>IP67, when adhered</li> </ul>	mbient conditions	
<ul> <li>outside the read/write area</li> <li>-40 +120 °C</li> <li>during storage</li> <li>5 25 °C</li> <li>ambient condition / for operation</li> <li>Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes</li> <li>protection class IP</li> <li>IP67, when adhered</li> </ul>	ambient temperature	
<ul> <li>◆ during storage</li> <li>5 25 °C</li> <li>ambient condition / for operation</li> <li>Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes</li> <li>protection class IP</li> <li>IP67, when adhered</li> </ul>	during read/write access	-25 +85 °C
ambient condition / for operation  Maximum storage life 2 years at 45% to 55% humidity, operating temperature permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes  protection class IP  IP67, when adhered	outside the read/write area	-40 +120 °C
protection class IP permanent up to 85 °C, transient -40 °C to 120 °C for 90 minutes  IP67, when adhered	during storage	5 25 °C
	ambient condition / for operation	
resistance to mechanical stress  Torsion and bending stress conditionally permissible	protection class IP	IP67, when adhered
	resistance to mechanical stress	Torsion and bending stress conditionally permissible

width	20 mm
height	0.3 mm
depth	75 mm
net weight	0.2 g
fastening method	one-side adhesible
product features, product functions, product components /	general
product feature	
• printable	Yes
printing process	Thermal transfer process
standards, specifications, approvals	
certificate of suitability	
• IECEx	No
further information / internet links	
internet link	
<ul><li>to web page: selection aid TIA Selection Tool</li></ul>	https://support.industry.siemens.com/cs/ww/en/view/67384964
• to website: Industrial communication	http://www.siemens.com/ident/rfid
• to website: Industry Mall	https://mall.industry.siemens.com
• to website: Information and Download Center	http://www.siemens.com/industry/infocenter
• to website: Image database	http://automation.siemens.com/bilddb
• to website: CAx-Download-Manager	http://www.siemens.com/cax
• to website: Industry Online Support	https://support.industry.siemens.com

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