800/900 MHz Radio Frequency Identification (RFID)

Application Regulation (Temporarily)

State Radio Regulation Committee (SRRC), Ministry of Informatics Industry (MII), P.R.China

1. The frequency allocation of "800/900 MHz RFID" is 840~845 MHz and 920~925 MHz;

2. The technical parameters of the RFID equipments should meet the following requirement:
   1) Carrier frequency tolerance: 20×10^{-6}
   2) Channel bandwidth and occupied channel bandwidth (99% Energy): 250 kHz
   3) Central frequency:
      f_c (MHz) = 840.125 + N×0.25, and
      f_c (MHz) = 920.125 + M×0.25 (N, M, is integer, value in 0~19)
   4) Adjacent channel leakage: 40 dB (for the first adjacent channel), 60dB (for the second adjacent channel)
   5) Emission power:

Frequency Allocation (MHz)	Maximum Emission Power (e.r.p)
840.50-844.5 920.50-924.5	2W
840-845 920-925	100mW

   6) Frequency hopping, the maxim dwelling time: 2 seconds.
   7) Spurious emission limit（beyond +/- 1 MHz of the central frequency in both bands）:
      7.1 Antenna interface

	Frequency domain	Limitation (dBm)	Test bandwidth	Detector
Full Power	30MHz-1GHz	-36	100kHz	RMS
	1-12.75GHz	-30	1MHz	
	806-821MHz 825-835MHz 851-866MHz 870-880MHz 885-915MHz 930-960MHz	-52	100kHz	
	1.7GHz-2.2GHz	-47	100kHz	
Stand by	30MHz-1GHz	-57	100kHz	
	1-12.75GHz	-47	100kHz	

7.2 Equipment Interface (including embedded antenna)

Frequency domain	Limitation (dBm)	Test bandwidth	Demodulation mode
30MHz-1GHz	-36 (e.i.r.p)	100kHz	RMS
1-12.75GHz	-30(e.i.r.p)	1MHz	

8) Interference emission of the power interface and signal interface should meet the limitation requirement to the type B equipment of national standard GB9254-1998;
9) The maxim emission power and frequency tolerance should meet the technique specification, when the equipment is working with the maximum voltage and temperature announced by the vendor.

3. The RFID equipment of this band is managed according to the micro-power (short range) wireless equipment. Before the equipment is used, a model certificate of the wireless equipment should be applied from the MII.

As the 800/900MHz RFID is a new wireless technology, and will be used widely, every level of the wireless management organization should strengthen the management of the RFID facilities in this band, detect and solve the wireless interference in time, in order to guarantee the steady development of the RFID application in China.