

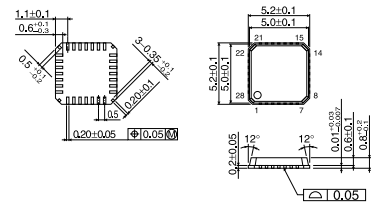
IMT-2000 External Interface IC

BU7870KN

● Description

The BU7870KN is an external interface IC for IMT-2000 cellular phones. USB, UART and hands-free devices are connected in the IMT-2000 external interface block where output must be switched appropriately for each device. This switching can be realized by only this IC and its small package size will also reduce the mounting space.

● Dimension (Unit : mm)



● Features

- 1) Applicable to 10pins external Interface for IMT-2000
- 2) Built-in switch circuit for USB
- 3) Built-in driver for UART
- 4) Built-in switch circuit for hands-free
- 5) Small and slim QFN28V package

QFN28V

● Applications

Cellular phones for IMT-2000

● Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Limits	Unit
Supply voltage	V _{CC}	7.0	V
Power dissipation	P _d	370 *	mW
Operating temperature range	T _{opr}	-30 ~ +80	°C
Storage temperature range	T _{stg}	-55 ~ +125	°C

*Derating : 3.7mW/°C for operation above Ta=25°C

● Recommended Operating Conditions (Ta=25°C)

Parameter	Symbol	Min.	Typ.	Max.	Unit
Digital operating voltage	CPUV _{DD}	2.5	2.9	3.3	V

● Electrical characteristics (Unless otherwise noted; Ta=25°C, Vcc=2.9V)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Stand-by current	I _{DD}	—	—	10	μA	
Digital H level input voltage	V _{IH}	0.8×CPUV _{DD}	—	—	V	
Digital L level input voltage	V _{IL}	—	—	0.2×CPUV _{DD}	V	
Digital H level input current	I _{IH}	—	—	10	μA	V _{IH} =CPUV _{DD}
Digital L level input current	I _{IL}	—	—	−10	μA	V _{IL} =0V
Digital H level output voltage	V _{OH}	CPUV _{DD} −0.6	—	—	V	I _{OH} =−1mA
Digital L level output voltage	V _{OL}	—	—	0.6	V	I _{OL} =1mA
USB path ON resistance	R _{ONUSB}	—	5	10	Ω	V _{IN} =3.3V or 0V
Hands-free path ON resistance	R _{ONANA}	—	100	200	Ω	V _{IN} =3.0V or 0V

● Application Circuit

