

[4 bit / 8 bit 1 Chip Microcontroller]

ROHM CO LTD

●BU24000/34000 Series • BU3400 Series

T-49-19-40

Application	With LCD driver							Miniature microcontroller	
	Audio		Remote controller/Camera					Miniature home hold appliances	
Series	BU34224	BU34424	BU24421	BU24422	BU24823	BU24821	BU24822	BU3437	BU3447
ROM	2048×8	4096×8	4096×8	4096×8	8192×8	8192×8	8192×8	1024×8	1024×8
RAM	128×4	256×4	128×4	256×4	256×4	128×4	256×4	64×4	64×4
Supply voltage	5V	5V	3V	3V	3V	3V	3V	5V	5V
Power consumption	5mA	5mA	1mA 15μA (watch mode)	4mA 15μA (watch mode)	4mA 15μA (watch mode)	1mA 15μA (watch mode)	4mA 15μA (watch mode)	1.2mA	1.2mA
Machine cycle	1.5μSec (#1)	1.5μSec (#1)	6.0μSec (#3)	3.0μSec (#2)	3.0μSec (#2)	6.0μSec (#3)	3.0μSec (#2)	1.5μSec (#1)	1.5μSec (#1)
External interrupt	1	1	2	2	2	2	2		
Internal interrupt	3	3	2	3	4	2	3		
Timer counter	8bit×2	8bit×2	1+1 (for watch)	1+1 (for watch)	2+1 (for watch)	1+1 (for watch)	1+1 (for watch)	1	1
Input			8	8	4	8	8	4	4
Output					8			1 (Buzzer)	1 (Buzzer)
Input-output	10	10	10	12	20	10	12	4	4
SIO	8bit×1	8bit×1		8bit×1	8bit×1		8bit×1		
Large current output			1 (15mA)	1 (15mA)	8 (15mA)	1 (15mA)	1 (15mA)		
A/D Input	8bit×8	8bit×8			8bit×8			8bit×2	8bit×2
D/A Output									
LCD driver	24seg×4com	24seg×4com	28seg×4com	36seg×4com	8seg×3com	28seg×4com	36seg×4com		
LED driver								8seg×3com	8seg×3com
Display dedication RAM	24×4	24×4	28×4	36×4	8×4	28×4	36×4	8×3	8×3
Oscillation circuit									
Ceramic oscillator	○	○	○	○	○	○	○	○	○
Crystal oscillator			○ (only sub OSC)	○ (only sub OSC)	○ (only sub OSC)	○ (only sub OSC)	○ (only sub OSC)		
Clock input	○	○	○	○	○	○	○		
Package	QFP64	QFP64	QFP64	SQFP80	SQFP80	QFP64	SQFP80	SDIP32	QFP32
Development support tools	Assembler • ICE							RDSBU2	
EE micro	☆BU36804		☆BU26807	☆BU26810	BU26805	☆BU26807	☆BU26810		
Evaluation board	EV24204	EV24204	EV24407	EV24410	EV24805	EV24407	EV24410	EV3437	EV3437
Feature	Spectrum analyzer can be configured by pairing with ROHM BA3830 series.		Built-in carrier generator for remote controller. Built-in counter for watch.		Built-in counter for watch.	Built-in carrier generator for remote controller. Built-in counter for watch.		Built-in carrier generator for buzzer. Built-in capacitor for ceramic oscillator.	

Notes) 1.☆Under Development

2.Machine cycle : When clock frequency is following value #1=4MHz #2= 2MHz #3=1MHz

3.Please contact us with regard to the development supporting tools (RDS-BU2,evaluation board,in-circuit emulator,etc.)

4.Option appointment of each device (types) is available (pull-up, pull-down, etc.)

Please let us know if you need details.

●BU2400/3400 Series

Application	Small scale microcontroller										
	General										
Series	BU3405	BU3406	BU3407	BU2405	BU2406	BU2407	BU3411	BU3416	BU3417	BU2415	BU2417
ROM	512×8			512×8			1024×8			1024×8	
RAM	16×4			16×4			64×4			64×4	
Supply voltage	5V			3V			5V			3V	
Power consumption	0.8mA			0.3mA			1.0mA			0.5mA	
Machine cycle	1.5 μSec (#1)			6.0 μSec (#3)			1.5 μSec (#1)			6.0 μSec (#3)	
Input							6	8	6	8	6
Output	2			2			17	24	17	24	17
Input-output	8			8							
Oscillation circuit											
Ceramic oscillator	○			○			○			○	
Crystal oscillator											
Clock input	○			○			○			○	
Package	DIP16	SOP18	ZIP18	DIP16	SOP18	ZIP18	SDIP30	QFP44	QFP32	SOP40	QFP32
Development support tool	RDSBU2										
Evaluation board	EV2405B			EV2405B			EV2400B			EV2400B	
Feature											

Notes) 1.Machine cycle : When clock frequency is following value #1=4MHz #2=2MHz #3=1MHz

2.Please contact us with regard to the development support tools (RDS-BU2, Evaluation board, in-circuit emulator, etc.)

3.Option appointment of each device types is available (pull-up, pull-down, etc.)

Please let us know if you need details.

●BU2400/3400 Series

Application	Small scale microcontroller							
	Remote controller				Small scale control			
Series	BU3463	BU3464	BU3465	BU3466	BU2463	BU2464	BU2465	BU2466
ROM	640×8	640×8	640×8	640×8	640×8	640×8	640×8	640×8
RAM	16×4	16×4	16×4	16×4	16×4	16×4	16×4	16×4
Supply voltage	5V	5V	5V	5V	3V	3V	3V	3V
Power consumption	0.8mA	0.8mA	0.8mA	0.8mA	0.3mA	0.3mA	0.3mA	0.3mA
Machine cycle	1.5 μ Sec (#1)	1.5 μ Sec (#1)	1.5 μ Sec (#1)	1.5 μ Sec (#1)	6.0 μ Sec (#3)	6.0 μ Sec (#3)	6.0 μ Sec (#3)	6.0 μ Sec (#3)
External interrupt								
Internal interrupt								
Timer counter								
Input	4	4	4	4	4	4	4	4
Output	8	8	6	6	8	8	8	6
Input-output								
SIO								
Large current output	1 (8mA)	1 (8mA)	1 (8mA)	1 (8mA)	1 (8mA)	1 (8mA)	1 (8mA)	1 (8mA)
Oscillation circuit								
Ceramic oscillator	○	○	○	○	○	○	○	○
Crystal oscillator								
Clock input	○	○	○	○	○	○	○	○
Package	SOP18	DIP18	SDIP18	SOP16	SOP18	DIP18	SDIP18	SOP16
Development support tool	RDSBU2							
Evaluation board	EV2403C	EV2403C	EV2403C	EV2403C	EV2403C	EV2403C	EV2403C	EV2403C
Feature	Built-in carrier generator for remote controller. Built-in capacitor for ceramic oscillator.							

Notes) 1.Machine cycle : When clock frequency is following value #1=4MHz #2=2MHz #3=1MHz

2.Please contact us with regard to the development supporting tools (RDS-BU2, Evaluation board, in-circuit emulator,etc.)

3.Option appointment of each device types is available (pull-up, pull-down, etc.) . Please let us know if you need details.

●BU2400/3400 Series

Application	Small scale microcontroller									
	Remote controller					Small scale control				
Series	BU3458	BU3459	BU3460	BU3461	BU3462	BU2468	BU2459	BU2460	BU2461	BU2462
ROM	1024×8	1024×8	1024×8	1024×8	1024×8	1024×8	1024×8	1024×8	1024×8	1024×8
RAM	32×4	32×4	32×4	32×4	32×4	32×4	32×4	32×4	32×4	32×4
Supply voltage	5V	5V	5V	5V	5V	3V	3V	3V	3V	3V
Power consumption	1.5mA	1.5mA	1.5mA	1.5mA	1.5mA	0.3mA	0.3mA	0.3mA	0.3mA	0.3mA
Machine cycle	1.5 μ Sec (#1)	1.5 μ Sec (#1)	1.5 μ Sec (#1)	1.5 μ Sec (#1)	1.5 μ Sec (#1)	6.0 μ Sec (#3)	6.0 μ Sec (#3)	6.0 μ Sec (#3)	6.0 μ Sec (#3)	6.0 μ Sec (#3)
External interrupt										
Internal interrupt										
Timer counter										
Input	4	4	4	4	4	4	4	4	4	4
Output	8	8	8	8	8	8	8	8	8	8
Input-output	4	4	4	2	2	4	4	4	2	2
SIO										
Large current output	1 (8mA)	1 (8mA)	1 (8mA)	1 (8mA)	1 (8mA)	1 (8mA)	1 (8mA)	1 (8mA)	1 (8mA)	1 (8mA)
Oscillation circuit										
Ceramic oscillator	○	○	○	○	○	○	○	○	○	○
Crystal oscillator										
Clock input	○	○	○	○	○	○	○	○	○	○
Package	SOP22	DIP22	SDIP22	SOP20	DIP20	SOP22	DIP22	SDIP22	SOP20	DIP20
Development support tool	RDSBU2									
Evaluation board	EV2418B	EV2418B	EV2418B	EV2418B	EV2418B	EV2418B	EV2418B	EV2418B	EV2418B	EV2418B
Feature	Built-in carrier generator remote controller. Built-in capacitor for ceramic oscillator.									

Notes) 1.Machine cycle : When clock frequency is following value #1=4MHz #2=2MHz #3=1MHz

2.Please contact us with regard to the development supporting tools (RDS-BU2, Evaluation board, in-circuit emulator,etc.)

3.Option appointment of each device types is available (pull-up, pull-down, etc) . Please let us know if you need details.