

Keremi

Don't waste time, know your competition

June 2012

Services

Can't keep up with changes in your competition's products?
And prices?
How many hours and nights to prepare for your portfolio review?

Freescal Kinetis ARM Cortex-M4 Microcontrollers KFamily K20

K20: Kinetis K20 Low-Power MCU with USB On-The-Go

Overview Documentation Software & Tools Buy / Parameters Training & Support

K20 Parameters

Part Number	Package	Status	Package Description and Diagram	Budgetary Price (\$US)	Core Type	Core Operating Frequency (Max) (MHz)	Flash (KByte)	Internal RAM (KByte)	Supply Voltage (Min-Max) (V)	Serial Interface Type
PK20N512VMD100	144MAP 13*13*1.7 P1	Available	144MAP 13*13*1.7 P1	10000 @ \$5.19 each	ARM Cortex M4	100	512	128	1.71 to 3.6	UART SPI I2C CAN
PK20X256VMD100	144MAP 13*13*1.7 P1	Available	144MAP 13*13*1.7 P1	10000 @ \$4.88 each	ARM Cortex M4	100	256	64	1.71 to 3.6	UART SPI I2C CAN

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Microcontrollers | STM32 - 32-bit ARM Cortex MCUs

Filter Panel

FLASH Size (Drop) 1024 Max 16 Min

Internal RAM Size 128 Max 4 Min

Other timer functions: 12 or 16-bit timers, 2 x WDG, RTC, 24-bit timer, 2 x WDG, RTC, 24-bit timer, 2 x WDG, RTC, 24-bit timer

A/D Converter 10x10-bit (24), 10x12-bit (1), 16x12-bit (1), 16x12-bit (76)

I/Os (High Current) 112(112) (11), 114(114) (7), 140(140) (4)

All Products STM32F103ZD

Part Number	Package	Marketing Status	Operating Frequency	FLASH Size (Prog)	Internal RAM Size	Data EEPROM
STM32F103ZD	LQFP 144 20x20x1.4 2	Active	36	384	48	6x16-bit (16/16/16)
STM32F103T4	VQFPN 36 6x6x1.0 PITCH	Active	72	16	6	3x16-bit (12/12/14)
STM32F103R6	LQFP 64 10x10	Active	48	32	6	2x16-bit (8/8/8)



Did you know?

- ST decreased their price by **22%** on 365 Cortex-M products early May?
- NXP announced new low-end families with the LPC11A early April



Keremi Product Dashboard: Your Product Information Hub

- Product pricing and feature set monitoring and analysis
- Effortless integration of your product parametrics with Keremi competitive intelligence
- Efficient visualization tool to extract actionable intelligence

Components Overview





Keremi dashboard

- Single point of access to all your CI data
- Secured confidential data
- Roadmap & Tabular views for detailed analysis
- Roadmaps exported to PowerPoint in seconds

Data channels

- Smallest unit of CI data
 - one company
 - one product family
- Processed public data from multiple sources
- Monthly updates included

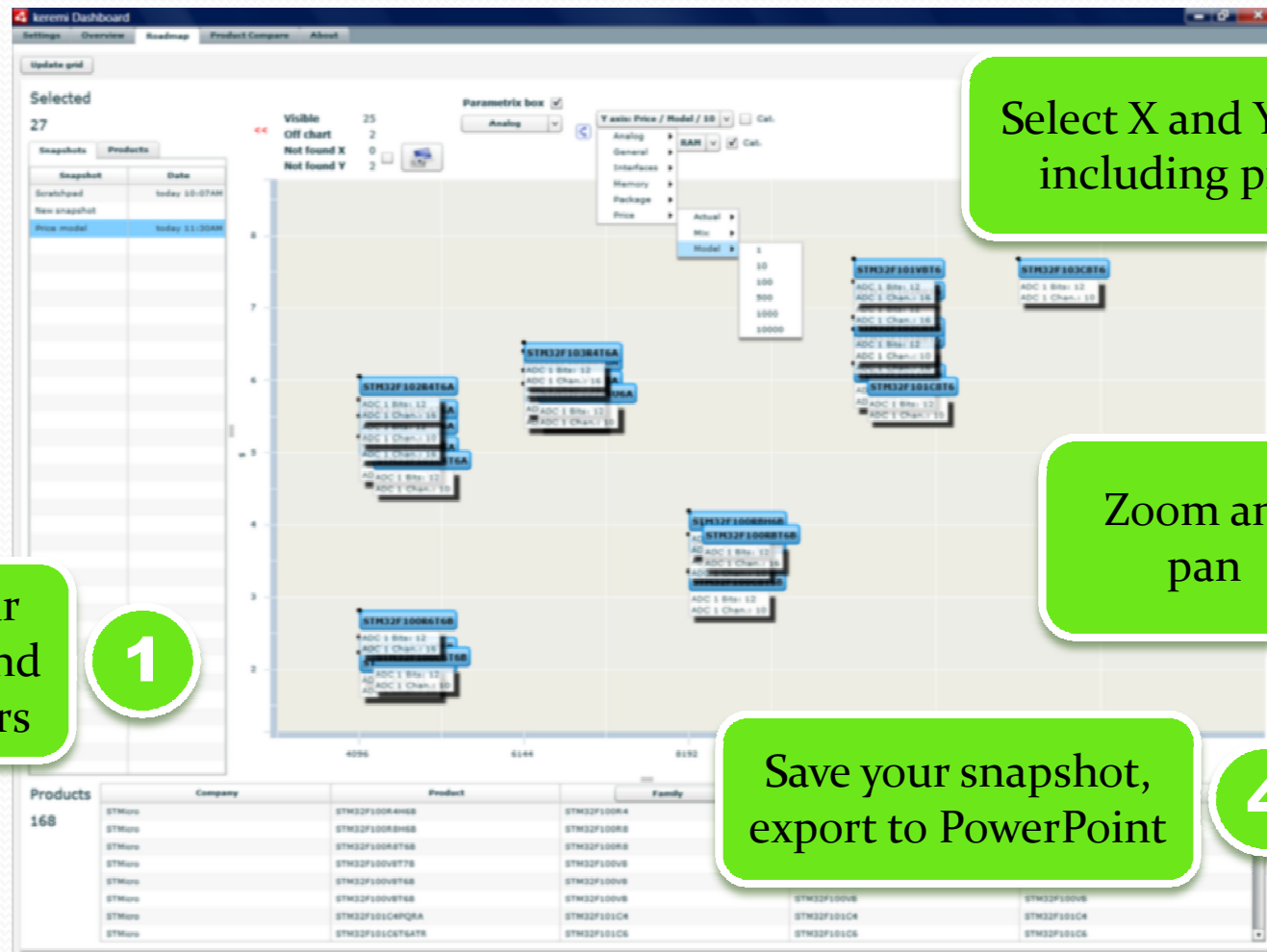
Channels availability

Competitor	Family	Parts	Availability
Atmel	SAM3/4	<100	Now
Freescale	Kinetis	100+	Now
NXP	LPC Cortex	140+	Now
Renesas	RX600/200	200+	Now
STMicro	STM32F/L	400+	Now
TI	Stellaris	<100	Now
Other	Other		~ 2 weeks

Customer data adapters

- Allow import of customer data in the dashboard
- Handle multiple formats e.g. XLS sheet, database, web-based system
- Benefits
 - Use internal formats, no manual work required
 - No more data duplication and inconsistency
 - Data resides on secured customer network

Keremi dynamic roadmap



Select your products and competitors

1

Select X and Y axis, including price

2

Zoom and pan

3

Save your snapshot, export to PowerPoint

4

Keremi differential analysis

The screenshot shows the 'Product Compare' interface of the Keremi Dashboard. It compares the 'STM32F101CBT6' (selected as the reference) against three other products: 'STM32F100R6T6', 'LPC1769FBD10', and 'LPC1768FE'. The table lists various parameters such as memory, pins, and pricing, with differential values shown in green (better) or red (worse) to indicate performance relative to the reference. Annotations highlight key features like selecting a reference, choosing products from a roadmap, and interpreting the color-coded differential values.

Parameters	1st	STM32F101CBT6	STM32F100R6T6	LPC1769FBD10	LPC1768FE
EEPROM (kB)	1st	0	identical	not found	not found
Flash (kB)	3rd	128	-96	+384	+384
RAM (Bytes)	3rd	16384	-12288	+49152	+49152
Package					
Pins	1st	48	+16	+52	+52
Type		LQFP	identical	identical	TFBGA
PubActual					
1 (\$)	2nd	8.13	-4.91	+3.95	+3.31
10 (\$)	2nd	7.31	-4.44	not found	+3.09
25 (\$)	N/A	not found	not found	10.16	9.62
100 (\$)	2nd	6.01	-3.66	+3.32	+2.83
250 (\$)	2nd	5.53	-3.40	+2.98	+2.54
500 (\$)	2nd	5.04	-3.13	+2.92	+2.50
1000 (\$)	2nd	4.39	-2.78	+2.91	+2.53
2400 (\$)	N/A	not found	not found	not found	not found
2500 (\$)	2nd	4.22	-2.70	+2.77	+2.41
5000 (\$)	2nd	4.06	-2.60	+2.75	+2.39
10000 (\$)	N/A	not found	1.43	not found	not found
PubMix					
100 (\$)	2nd	6.01	-3.66	+3.32	+2.83
1000 (\$)	2nd	4.39	-2.78	+2.91	+2.53
10000 (\$)	2nd	3.90	-2.47	+2.63	+2.29
50000 (\$)			-2.15	+2.29	+1.99
100000 (\$)			-1.97	+2.10	+1.82
250000 (\$)			-1.73	+1.84	+1.60
500000 (\$)			-1.57	+1.67	+1.45
1000000 (\$)			-1.46	+1.56	+1.35
PubModel					



Who is your close competition?

- More than 31,000 unique MCU part numbers
- Constant change, from launch to obsolescence
- Dozens of parametrics to compare



Keremi batch X-Referencing

- Input
 - XLS sheet with list of parts to cross-reference
 - No need to reformat the input
 - No need to rename the parametrics
 - Or data from our database
- Output
 - XLS sheet with, for each input part
 - Top 10 competitive parts based on a list of parametrics

Parametrics list (as of 3/12)

Analog>ADC 1 Bits
Analog>ADC 1 Chan.
Analog>ADC 2 Bits
Analog>ADC 2 Chan.
Analog>ADC 3 Bits
Analog>ADC 3 Chan.
Analog>ADC 4 Bits
Analog>ADC 4 Chan.
Analog>ADC Count
Analog>ADC Max Chan.
Analog>Comparator
Analog>DAC 1 #
Analog>DAC 1 Bits
Analog>DAC 1 Chan.
Analog>DAC 2 Bits
Analog>DAC 2 Chan.
Analog>DAC Count
Analog>DAC Max Chan.

General>Architecture
General>Bus Arch
General>Frequency
General>Status
General>Temp. Max
General>Temp. Min
General>Vcc max
General>Vcc min
Interfaces>Ext. bus
Interfaces>I/O
Interfaces>I2C
Interfaces>I2S
Interfaces>SDIO
Interfaces>SPI
Interfaces>UART
Interfaces>USART
Interfaces>CAN

Interfaces>Ethernet>Ports
Interfaces>Ethernet>Speed
Interfaces>Ethernet>Type
Interfaces>Timers>16-bit
Interfaces>Timers>32-bit
Interfaces>USB>Phy
Interfaces>USB>Ports
Interfaces>USB>Speed
Interfaces>USB>Type
Interfaces>USB2>Phy
Interfaces>USB2>Speed
Interfaces>USB2>Type
Memory>EEPROM
Memory>Flash
Memory>RAM
Package>Pins
Package>Type



Keremi batch X-Referencing

- Details
 - Compare parts from selected channels (see next page)
 - Updated monthly
 - Part Pricing option available
 - Competitor web site, DK and MO pricing

Keremi batch X-Referencing

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- For more information, please visit us at
 - <http://www.keremi.com>
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