



**New Q24 series
certification**

Impact on end-customers
products

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Make it wireless

The logo for 'Agenda' features the word in a bold, black, sans-serif font. It is positioned to the right of a blue circular graphic composed of two overlapping, slightly offset rings, creating a sense of motion or a globe.

Agenda

- Short reminder on requirements for end-customer products
- Application: Migrating from Q24xx to New Q24 Series

Definitions

- ✓ Two types of certifications exist in Europe for GSM/GPRS terminals – End-customer product:
 - **Regulatory requirements : R&TTE directive**
 - ⇒ **Mandatory** for a product to be sold
 - ⇒ It is the manufacturer responsibility to ensure the full compliance of a product, to R&TTE directive requirements (based on harmonised standards), when addressing the market.
 - ⇒ CE mark must be affixed on products.
 - **Certification requirements : GCF**
 - ⇒ Entirely **voluntary** approach
 - ⇒ May be requested by some customers (operators for instance)
 - ⇒ Ensure the compliance to GSM specification, according to one selected GCF-CC version.



Regulatory requirements R&TTE (1): What?

- ✓ Many kinds of tests must be performed:
 - **Efficient use of GSM spectrum (EN 301 511 ; EN 301 419-1)**
 - ⇒ Radio tests, usually extracted from GCF-CC report (if any)
 - **Electromagnetic compatibility (EN 301 489-7)**
 - **Safety (EN60950)**
 - ⇒ Not applicable for wireless CPU
 - ⇒ Applicable to end applications
 - **SAR (EN50360, EN50631)**
 - ⇒ Applicable if the end application is used within 20 cm of a human body.



Regulatory requirements R&TTE (2): How?

✓ **Notified Bodies:**

- **Accredited test houses to perform the testing and deliver expert opinions (Cetecom, ...)**
- **Easier and safer way to prove the compliance to R&TTE directive requirements and justify the CE mark affixed on product.**

✓ **Also:**

- **Self certification is allowed. It is the manufacturer responsibility to be able to prove the compliance to R&TTE requirement of its product.**
- **In case of changes inside one product, if the product isn't submitted to a lab and if no tests are performed, it is the manufacturer responsibility to be able to justify the technical impacts of the changes (if any) and justify its way to proceed to write the Declaration Of Conformity of the new version of the product.**



New Q24 Series and Open AT[®] Firmware 6.57

PNMKT	Description	Europe		North America		
		R&TTE	GCF-CC v3.23.1	NAPRD.03 v3.8.1	FCC	IC
Q24CL001	Q24 Classic AMR Codec	Y	Y	Y	Y	Y
Q24CL002	Q24 Classic HR Codec	Y	Y	N	N	N
Q24CL003	Q24 Classic AMR w. SIM holder	Y	Y	Y	Y	Y
Q24CL004	Q24 Classic HR w. SIM holder	Y	Y	N	N	N
Q24PL001	Q24 Plus AMR Codec	Y	Y	Y	Y	Y
Q24PL002	Q24 Plus HR codec	Y	Y	N	N	N
Q24PL003	Q24 Plus AMR w. Sim holder	Y	Y	Y	Y	Y
Q24PL004	Q24 Plus HR w. Sim holder	Y	Y	N	N	N
Q24PL005	Q24 Plus AMR dual bandUS	N	N	Y	Y	Y
Q24PL006	Q24 Plus w. Sim hold dual bandUS	N	N	Y	Y	Y
Q24EX001	Q24 Extended AMR Codec	Y	Y	Y	Y	Y
Q24EX002	Q24 Extended HR Codec	Y	Y	N	N	N
Q24AU001	Q24 Auto with MMS (AMR)	Y	Y	Y	Y	Y
Q24AU002	Q24 Auto with UFL (AMR)	Y	Y	Y	Y	Y

Migration Q24xx to new Q24 series (1)

Context: changing the embedded wireless CPU into one end application without changing anything in the design of the product (no component change, no PCB change, etc...)

Objective: be sure that the new product version is also compliant to all directives, as the initial version.

Migration Q24xx to new Q24 series (2)

⇒ European certification

- ⇒ The new product version must be compliant to R&TTE directive
- ⇒ Self certification is allowed. It is the manufacturer responsibility to be able to prove the compliance to R&TTE requirement of its product.
- ⇒ In case of changes inside one product, if the product isn't submitted to a lab and if no tests are performed, it is the manufacturer responsibility to be able to justify the technical impacts of the changes (if any) and justify its way to proceed to write the Declaration Of Conformity of the new version of the product.
- ⇒ Submitting the new product version to an accredited laboratory is the easier and safer way to prove the compliance to R&TTE directive requirements and justify the CE mark affixed on the product.
 - ⇒ EMC tests may be required by the test house
 - ⇒ Radiated spurious GSM tests may be required

Migration Q24xx to new Q24 series (3)

⇒ North American certification

- ⇒ Every hardware and/or software change must be notified to the CTIA via an ECO, a Variant or an Initial Request.
- ⇒ This is one notified body (usually a test house) responsibility to determine if tests must be performed on the new version of the product.
- ⇒ FCC tests must be performed again (non-regression tests doesn't exist, all tests must be performed)