ITI Promoting Innovation Worldwide

ITI Position Paper: Modular Approvals Reduce Barriers to Trade

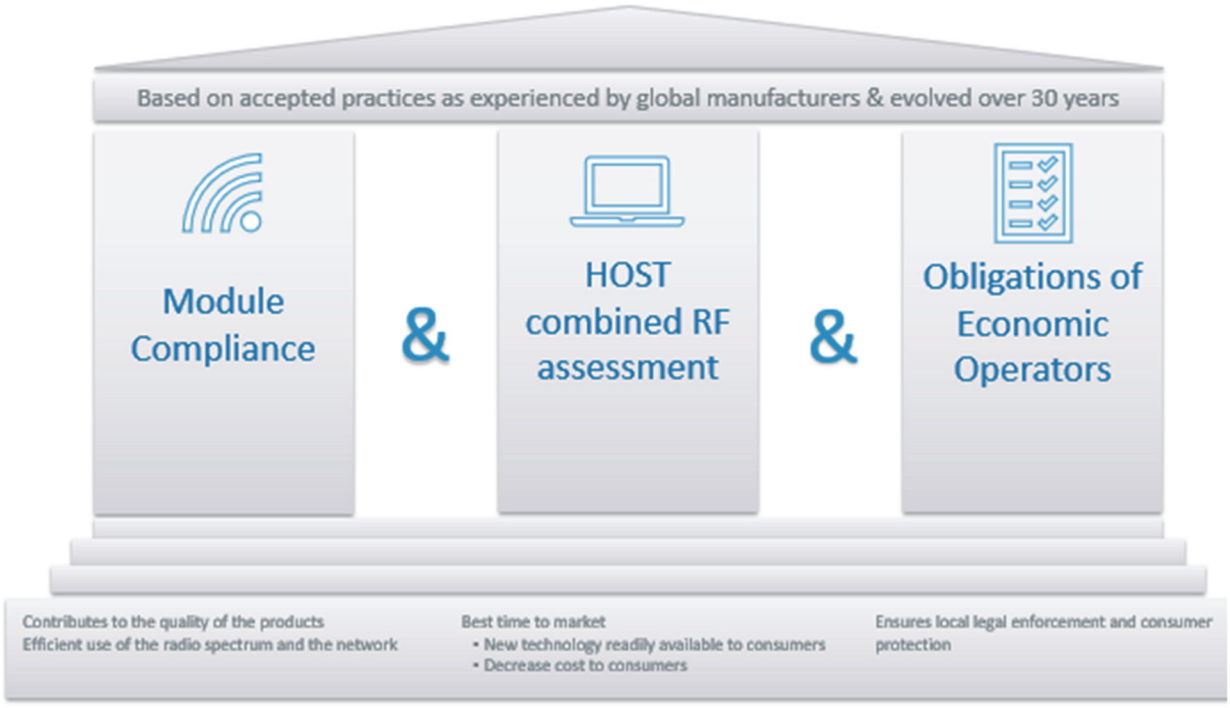
What is Modular Approval?

Modular approval is limited to a radio module that is a tangible, clearly delineated device that is typically tested in a stand-alone configuration. Once modular approval has been obtained, the radio module can be installed into host systems following the integration requirements without having to obtain new authorization/certification. A host product is still required to comply with all other applicable equipment requirements when the module is installed. A modular certification reduces the radio testing and equipment homologation procedures associated with the host but does not present any conclusions about the host system. Modular approval has been a technically proven process and has a 30-year track record of effectiveness throughout the world.

Why Remove the Option for Modular Approval?

The ICT industry is beginning to see a disturbing trend in telecom conformity assessment schemes, where countries are taking away the option for modular approval. This might be done because of a mistaken perception that modular approval does not provide adequate protection to the country's infrastructure and users of the radiated spectrum or accountability throughout the supply chain.

As illustrated, utilizing a three-tiered approach for conformity assessments ensures that products are in compliance with technical regulations while maintaining accountability to the manufacturers of both the radio module and the host product. Several elements of radio module testing and certification ensure consumer protection and increase regulatory assurance. Integration instructions that are provided by



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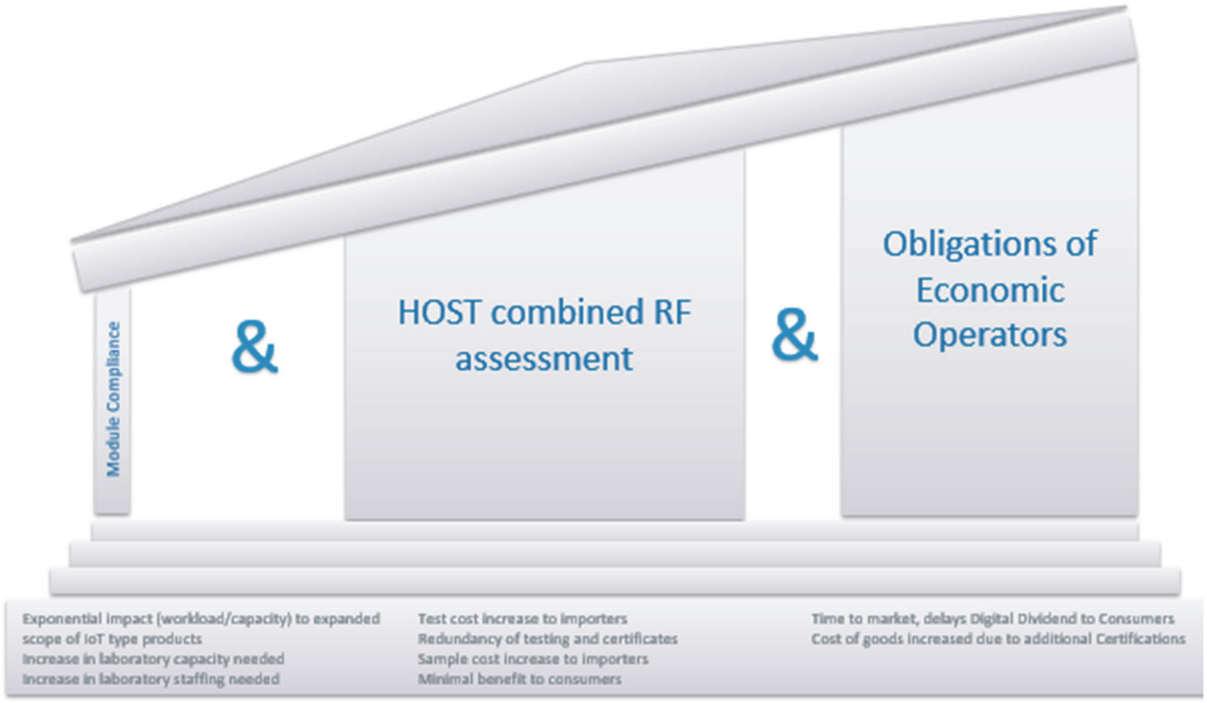
the module manufacturer to the system integrator specify installation, antenna type and gain to be used, and operating conditions necessary for compliance. Radio frequency (RF) shielding ensures that the module does not have to rely upon the shielding provided by the host device into which it is installed and reduces RF coupling onto the host system board. Power supply regulation ensures that the module will comply with the requirements regardless of the design of the power supplying circuitry in the host device into which the module is installed.

Without the possibility of modular approval, as illustrated, there is an increased reliance on the host system verification, and the telecom conformity assessment framework is weakened. Any perceived regulatory benefits to abolishing modular approval or potential increase in testing or certification fees are offset by increased and redundant testing that overload a country's testing capacity, increased costs passed on to the consumer, and delayed delivery of devices to market without any additional benefit to consumers.



What are the Benefits of Modular Approval?

Modular approval benefits consumers and businesses technology users because it can help reduce time to market, minimizing disruption in availability of products for consumers, both for critical and noncritical use. Meanwhile, consumer protection and legal enforcement options are ensured because of the economic operators' obligations. For example, the RF exposure assessment of the stand-alone module defines the restrictions that must be followed when the module is integrated into the final product to ensure compliance. If the restrictions cannot be followed a re-evaluation is required. Economic operators provide user manuals, certifications, product labelling/e-labeling, packaging artwork, and a regulatory notice to ensure that consumers and regulators are fully aware of the module and host system compliance.

Regulator workloads are made more efficient by:

- Reducing the need for increased lab capacity for module and host/end-product redundant RF testing
- Reducing workload due to expanded scope including IoT products
- Reducing the need for larger storage space due to expanded scope of devices
- Reducing the need for host/end-product specific software/firmware tools for testing
- Reducing unintended delays in testing and homologation throughput time.

Finally, modular approval can help manufacturers to reduce costs, save time, and establish a standard radio interface across multiple host devices.

Recommendations for Regulators

ITI strongly recommends that countries maintain or bring modular approval back into their regulations to achieve the goals of their telecommunications equipment conformity assessment schemes. Modular approval not only creates efficiencies for regulators, but it also ensures consumer protection and legal enforcement assurance. In addition, it maintains efficient use of the radio spectrum and the network. Consumers benefit with reduced cost and improved time to market with the latest technologies. ITI is available to provide presentations to regulators and government officials who wish to learn more about re-incorporating modular approval into their telecom conformity assessment schemes.

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