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### ***Rad-Hard ICs Deliver 300-krad TID For GEO Applications***

[Apogee Semiconductor's](#) AF54RHC GEO family of radiation-hardened ICs is designed for medium earth orbit (MEO), geostationary orbit (GEO), and deep space missions. The family of logic functions features essential capabilities for GEO applications, including a required 300-krad (Si) total ionizing dose (TID) performance and greater than 80-MeV·mg/cm<sup>2</sup> single event effect (SEE) performance. These ICs operate from 1.65 V to 5.5 V and are available in TSSOP-14 and TSSOP-20 packages that follow a QML-P "like" flow.

Anton Quiroz, CRO of Apogee Semiconductor, states, "This new family builds on the successful flight heritage of our AP54RHC LEO family. Our customers using the AP54RHC LEO family sought 300 krad (Si) for their GEO missions, prompting us to develop the GEO family with pin-to-pin compatibility for an easy upgrade path to GEO missions. We are currently offering nine variants of the GEO family for sampling, with many more on the way."

In addition to the new GEO family, Apogee Semiconductor is also enhancing the TID radiation performance of its AP54RHC LEO family from 30 krad to 70 krad TID at 3.3 Vdc. This upgrade will enable our customers to use our LEO products in more demanding radiation environments that require additional resilience.

The AF54RHC GEO family includes functions such as a dual three-input majority voter, a dual two-input signal arbiter and a quad two-input arbiter. It also includes various level translators, basic logic functions, shift registers, flip-flops, transceivers and buffers. For more information, see the entire AF54RHC catalog [here](#) and contact the [company](#) for orders.