Qorvo's GaN-on-SiC Advantage

00:00:07.480 --> 00:00:08.520
The Qorvo team has been
working on GaN technology for

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something more than
15 years at this point.

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We have a long history of developing
semiconductor processes, of course,

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and the GaN portfolio started in about
1999, in earnest, in several different

00:00:25.080 --> 00:00:28.760
research locations that we have now
brought together as Qorvo.

00:00:29.240 --> 00:00:34.560
During that time, there was,
an initial interest from the

00:00:34.560 --> 00:00:38.280
Department of Defense in GaN technology
and much of the early investment

00:00:38.280 --> 00:00:41.280
was done by the government
that helped us along the way.

00:00:41.400 --> 00:00:47.920
And if I think about the investment that's been
made by our customer community as well as our own,

00:00:47.920 --> 00:00:52.000
we've certainly put on the order of $100
million in the technology development

00:00:52.320 --> 00:00:55.840
that's gone into our product
portfolio today.

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At Qorvo, we've chosen to produce
our GaN on silicon carbide substrates.

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And that was done for several reasons.

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First, it's an excellent insulator,
which let's us design our complex MMICs,

00:01:07.600 --> 00:01:10.600
not just transistors in a
way that provides the,

00:01:10.800 --> 00:01:19.200
characteristics that we need for very compact,
high performance, multi stage amplifiers.

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And more importantly, we selected it
for its advanced thermal characteristics.

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Silicon carbide has exceptional
thermal conductivity which

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allows us to remove heat
very effectively from our devices

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and allows us, because of that, to make
a much smaller compact device structure,

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enables us to get to higher
levels of efficiency,

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and accrues many benefits
of that nature to the customers

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so that we have the most compact,
the most affordable,

00:01:49.560 --> 00:01:53.240
and highest efficiency devices
that we can possibly get.