Android Police,

Thanks for the opportunity to clarify our position. We are indeed conscious of this situation and have been conducting extensive testing since the first report appeared earlier this week, in the form of a customer email. We've redacted all private information and copied the conversation below, for your reference.



Tuesday 08:31

Hi, I recently got my Damascus skin for my iPhone 12 Pro Max, order number I installed the full skin that wraps around the edges of the phone and I noticed I'm having some signal issues now when it comes to cellular and gps. Have there been any other reports of this by chance? Or would you have any suggestions on what might be the cause?



Robot 080 Wednesday 17:01 (assign)

Hey

Thanks for reaching out, and we're sorry to hear about the issue. We would definitely like to investigate this further with our QC team, but we have a few questions and a favour to ask of you. We'll start with the questions:

- 1. Can you please confirm which of the materials you purchased seems to be causing the issue?
- 2. What is the carrier that you use with your iPhone 12 Pro Max?
- 3. Regarding the last question, are you normally on a 5G, 4G-LTE, or 4G network in your area?
- 4. Have you previously had any other skins installed on this iPhone 12 Pro Max? If so, did you notice any similar signal loss? What about with the use of a case?

Now for the favour - if you still have the skin installed, would you be able to send us a video demonstrating the signal loss? Feel free to peel off the skin to show us the signal without the skin on. We'd be happy to send a replacement, free of charge, regardless of the skin being found at fault or not.

Thanks, and we'll talk with you soon!

Signed, A Robot



Wednesday 17:12

Hi, unfortunately I don't have the precision fit skin on anymore, I had to remove it and switch to the standard fit skin. So far reception has been better as far as I can tell. In regards to the questions:

- 1. It's the Damascus precision fit skin I'm having issues with. I used to have a teardown skin on my old Note 10 and never had this kind of issue, maybe it has something to do with the material being used for the holo effect?
- 2. I'm on Verizon, though I ran into someone on the subreddit who was having the same issue, their post said they were on t-mobile.
- 3. Most of my area has 5G, but not all of it. It's about a 50-50 split for my time spent on either 5G or LTE.
- 4. Not on this iPhone, before having this skin I would just rock the phone without a case.



No problem about the video, we're aware of the Reddit thread and a couple of those customers have already reached out to us, so we're investigating on our end already. We'll pass the information you've provided to our QC team for review.

It may take us a few days to come to a conclusion, but we *will* provide a resolution, and hopefully a fix to the problem. For now, sit tight, and we'll get back to you as soon as we can. Thanks again for your patience, and talk soon!

Signed, A Robot

We're still investigating which devices are affected. Almost the entirety of reports we've encountered thus far have been related to iPhone 12 models where customers installed the "Precision Fit" version (i.e. the skin which wraps around the frame of the device).

As a reminder, we include both a "Precision Fit" (full-body) and "Standard Fit" (back-only) skin with each order. Both our internal testing and customer reports reveal that the "Standard Fit" version does not result in signal interference (presumably a consequence of the back-only skin leaving the antenna bands uncovered on the frame of the device).

For reference, an illustration of both the "Precision" and "Standard" skins which are included with each affected order can be found in the image below.







STANDARD

You can find a few Reddit posts below which echo the sentiment that the "Precision Fit" affects signal strength, while the "Standard Fit" does not.

- Reddit Post: Precision Fit iPhone 12 series, signal strength is affected.
- Reddit Post: Standard Fit iPhone 12 series, signal strength is not affected.
- Reddit Post: Discussion in the comments regarding how signal strength relates to both Standard and Precision Fit skins.

Of course, we sell a lot more than just skins for the iPhone 12 series. We've done an initial pass on all four materials and 180 devices available in the Damascus drop and have found the following preliminary results:

- The holographic layer which underpins three of the four Damascus materials (Holo Red, Holo Green & Warzone) has a very low conductivity. Our tests indicate a one-part-per-thousand (1%) composition of a metallic additive. This low composition is the reason that covering the antenna bands with a holographic variant of Damascus statistically reduces signal strength, but doesn't entirely "Faraday cage" it.
- The Triple Black material is not affected in any capacity. Along with the other 40,000+ SKUs in our portfolio,
 Triple Black is a known entity in terms of construction and patently contains no metal additives or signal-interfering properties.
- Any holographic smartphone skins marked as "Precision Fit" (i.e. full wrap-around) are affected.
 - o By way of example, this includes one of the two included skins with iPhone and Pixel models.
- Any holographic smartphone skins marked as "Standard Fit" (i.e. covering only the back) are not affected.
 - By way of example, this includes Samsung and OnePlus models (e.g. models with the antenna band uninhibited on the frame of the device), as well the included "Standard Fit" skins for iPhone and Pixel models.

AirTags are not affected.

- The stainless steel battery cover is unphased by the 1% (one-one-thousandth) holographic additive.
- When a holographic skin is applied to the top of the AirTag, the white plastic shell is left with a wide ring exposed around the perimeter, allowing for unaffected signal strength at any range.

• Laptops are not affected.

o Primarily metal chassis designs, laptops are unphased by the 1% holographic additive.

• Gaming Consoles are not affected.

- The PS5 chassis is almost entirely encompassed by plastic, allowing for stock signal pass-through.
 The center strip covering the front and top has no effect on signal strength.
- The trypophobic pattern on the top of the Xbox Series X, paired with the numerous cutouts on the back and untouched bottom, allow for effective signal pass-through.
- As a result of the "Switch" attachment mechanisms, the inner faces of the Switch JoyCons and center console are uninhibited and allow for effective signal pass-through. This is bolstered by the cutouts on the top & bottom of the console, as well as the fully exposed screen.

- Wireless charging and NFC are not affected.
 - The 1‰ (one-one-thousandth) holographic additive is not material enough to interfere with either wireless charging or NFC functionality.
- Grip Cases with holographic skins applied on top are not affected.
 - The holographic skin material covers strictly the back panel of the Grip Case (akin to a non-problematic "Standard Fit" skin). Taking this a step further, because the holographic skin is applied directly to the outer shell of the Grip Case, it doesn't make any contact with the smartphone at all.
 - The entire perimeter of the Grip Case is a thermoplastic and the rear is a microfiber & polymer construction. All of these industry-standard synthetic materials allow for uninterrupted signal pass-through.

Prior to launching Damascus skins, we spent a number of weeks field-testing the material on our own devices. During this period, we noticed no signal interference. In all likelihood, this was a result of the strong baseline signal strength we benefited from. An end-user's *baseline* signal strength plays a critical role in the observation of signal degradation. In simpler terms: going from five bars to three is far less noticeable than going from two bars to zero.

Since all of our field testing was localized to a high-density urban environment within the Greater Toronto Area, our signals fell squarely on the "five-to-three" end of the signal loss spectrum. While this is absolutely *not* an acceptable consequence of applying a skin, our hindsight would reveal that any negative effect on the strong baseline signal strength wasn't impactful enough to be noticeable during field testing. This is further diluted by any test agents using the entirely unaffected Grip Case. As we've learned time and time again with product deployments, local testing (in this case, relating to signal strength reliability) is rarely a substitute for global conditions.

For affected products and customers, we're taking a few steps to remedy the issue.

Our first course of action has been to remove purchase-ability of any "Precision Fit" skins for the affected materials: Holo Red, Holo Green, and Warzone. This adjustment is already reflected on our website, manufacturing, and order fulfillment processes. Affected models now only include the non-interfering "Standard Fit" skins.

There were precisely two smartphone models which had no matching "Standard Fit" skin to complement the "Precision Fit" version: the iPhone 7 and iPhone 7 Plus. For those two models, we killed the holographic Damascus skins altogether. Again, the Triple Black version remains unaffected.

Next steps involve completing our analysis and testing over the next 72 hours (RSSI, mW & dBm across ~1050 holographic-based SKUs).

If we do find that the initial results hold true, this signal strength issue will affect precisely 69 holographic-based SKUs, all of which have been preemptively disabled (e.g. iPhone 7 / Plus) or nerfed (i.e. no "Precision Fit") on our website and within our internal operations. For the sake of clarity, all sixty-nine of those SKUs are copied below:

1. IPHONE-11_BACK-SKIN_HOLO-GREEN

Removed Precision Fit option

2. IPHONE-11_BACK-SKIN_HOLO-RED

Removed Precision Fit option

3. IPHONE-11_BACK-SKIN_WARZONE

Removed Precision Fit option

4. IPHONE-11-PRO_BACK-SKIN_HOLO-GREEN

Removed Precision Fit option

5. IPHONE-11-PRO_BACK-SKIN_HOLO-RED

Removed Precision Fit option

6. IPHONE-11-PRO_BACK-SKIN_WARZONE

Removed Precision Fit option

7. IPHONE-11-PRO-MAX_BACK-SKIN_HOLO-GREEN

Removed Precision Fit option

8. IPHONE-11-PRO-MAX_BACK-SKIN_HOLO-RED

Removed Precision Fit option

9. IPHONE-11-PRO-MAX_BACK-SKIN_WARZONE

Removed Precision Fit option

10. IPHONE-12_BACK-SKIN_HOLO-GREEN

Removed Precision Fit option

11. IPHONE-12_BACK-SKIN_HOLO-RED

Removed Precision Fit option

12. IPHONE-12_BACK-SKIN_WARZONE

Removed Precision Fit option

13. IPHONE-12-MINI_BACK-SKIN_HOLO-GREEN

Removed Precision Fit option

14. IPHONE-12-MINI_BACK-SKIN_HOLO-RED

Removed Precision Fit option

15. IPHONE-12-MINI_BACK-SKIN_WARZONE

Removed Precision Fit option

16. IPHONE-12-PRO_BACK-SKIN_HOLO-GREEN

Removed Precision Fit option

17. IPHONE-12-PRO_BACK-SKIN_HOLO-RED

Removed Precision Fit option

18.	IPHONE-12-PRO_BACK-SKIN_WARZONE
	Removed Precision Fit option
10	IDHONE 12 DDO MAY DACK CKIN HOLO CI

- IPHONE-12-PRO-MAX_BACK-SKIN_HOLO-GREEN
 Removed Precision Fit option
- 20. IPHONE-12-PRO-MAX_BACK-SKIN_HOLO-RED Removed Precision Fit option
- 21. IPHONE-12-PRO-MAX_BACK-SKIN_WARZONE Removed Precision Fit option
- 22. IPHONE-7_BACK-SKIN_HOLO-GREEN Killed product altogether
- 23. IPHONE-7_BACK-SKIN_HOLO-RED Killed product altogether
- 24. IPHONE-7_BACK-SKIN_WARZONE Killed product altogether
- 25. IPHONE-7-PLUS_BACK-SKIN_HOLO-GREEN Killed product altogether
- 26. IPHONE-7-PLUS_BACK-SKIN_HOLO-RED Killed product altogether
- 27. IPHONE-7-PLUS_BACK-SKIN_WARZONE Killed product altogether
- 28. IPHONE-8_BACK-SKIN_HOLO-GREEN Removed Precision Fit option
- 29. IPHONE-8_BACK-SKIN_HOLO-RED Removed Precision Fit option
- 30. IPHONE-8_BACK-SKIN_WARZONE Removed Precision Fit option
- 31. IPHONE-8-PLUS_BACK-SKIN_HOLO-GREEN Removed Precision Fit option
- 32. IPHONE-8-PLUS_BACK-SKIN_HOLO-RED Removed Precision Fit option
- 33. IPHONE-8-PLUS_BACK-SKIN_WARZONE Removed Precision Fit option
- 34. IPHONE-SE-2020-GEN-2_BACK-SKIN_HOLO-GREEN Removed Precision Fit option
- 35. IPHONE-SE-2020-GEN-2_BACK-SKIN_HOLO-RED Removed Precision Fit option
- 36. IPHONE-SE-2020-GEN-2_BACK-SKIN_WARZONE Removed Precision Fit option

- 37. IPHONE-X_BACK-SKIN_HOLO-GREEN Removed Precision Fit option
- 38. IPHONE-X_BACK-SKIN_HOLO-RED Removed Precision Fit option
- 39. IPHONE-X_BACK-SKIN_WARZONE Removed Precision Fit option
- 40. IPHONE-XR_BACK-SKIN_HOLO-GREEN Removed Precision Fit option
- 41. IPHONE-XR_BACK-SKIN_HOLO-RED Removed Precision Fit option
- 42. IPHONE-XR_BACK-SKIN_WARZONE Removed Precision Fit option
- 43. IPHONE-XS_BACK-SKIN_HOLO-GREEN Removed Precision Fit option
- 44. IPHONE-XS_BACK-SKIN_HOLO-RED Removed Precision Fit option
- 45. IPHONE-XS_BACK-SKIN_WARZONE Removed Precision Fit option
- 46. IPHONE-XS-MAX_BACK-SKIN_HOLO-GREEN Removed Precision Fit option
- 47. IPHONE-XS-MAX_BACK-SKIN_HOLO-RED Removed Precision Fit option
- 48. IPHONE-XS-MAX_BACK-SKIN_WARZONE Removed Precision Fit option
- 49. PIXEL-3_BACK-SKIN_HOLO-GREEN Removed Precision Fit option
- 50. PIXEL-3_BACK-SKIN_HOLO-RED Removed Precision Fit option
- 51. PIXEL-3_BACK-SKIN_WARZONE Removed Precision Fit option
- 52. PIXEL-3-XL_BACK-SKIN_HOLO-GREEN Removed Precision Fit option
- 53. PIXEL-3-XL_BACK-SKIN_HOLO-RED Removed Precision Fit option
- 54. PIXEL-3-XL_BACK-SKIN_WARZONE Removed Precision Fit option
- 55. PIXEL-4_BACK-SKIN_HOLO-GREEN Removed Precision Fit option

56. PIXEL-4_BACK-SKIN_HOLO-RED Removed Precision Fit option

57. PIXEL-4_BACK-SKIN_WARZONE Removed Precision Fit option

58. PIXEL-4-XL_BACK-SKIN_HOLO-GREEN Removed Precision Fit option

59. PIXEL-4-XL_BACK-SKIN_HOLO-RED Removed Precision Fit option

60. PIXEL-4-XL_BACK-SKIN_WARZONE Removed Precision Fit option

61. PIXEL-4A_BACK-SKIN_HOLO-GREEN Removed Precision Fit option

62. PIXEL-4A_BACK-SKIN_HOLO-RED Removed Precision Fit option

63. PIXEL-4A_BACK-SKIN_WARZONE Removed Precision Fit option

64. PIXEL-4A-5G_BACK-SKIN_HOLO-GREEN Removed Precision Fit option

65. PIXEL-4A-5G_BACK-SKIN_HOLO-RED Removed Precision Fit option

66. PIXEL-4A-5G_BACK-SKIN_WARZONE Removed Precision Fit option

67. PIXEL-5_BACK-SKIN_HOLO-GREEN Removed Precision Fit option

68. PIXEL-5_BACK-SKIN_HOLO-RED Removed Precision Fit option

69. PIXEL-5_BACK-SKIN_WARZONE Removed Precision Fit option

Once testing is complete for all ~1050 holographic SKUs, targeting Tuesday, we expect to reach out to 100.0% of affected customers with a resolution via email. While we can't say for certain what that resolution will be, we have a track record for doing right by our customers when product issues arise. This time won't be any different.

Let us know if you have any questions.

- @robot