DISCUSSION : The Gotham UltraPro Series. What are the Advantages?

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1.
The Gotham UltraPro series of cables was developed to meet specific needs in various applications. In no case did we set out to make a cable that satisfied vague and subjective criteria such as "sounds better." The fact that we ended up with cables that are being widely praised for their sonic qualities is what we might the Gotham "family tradition" of providing cables that are sonically neutral-- conveying audio signals with trueness, balance and detail

At Gotham our concern has always been shielding, first and foremost. It doesn't matter how a cable "sounds" if it is not able to effectively reject EMI and RFI. This was a major problem with most cables back in 1966 when EMT introduced double Reussen shielding. It remains a major challenge today in an ever more crowded electromagnetic environment. Building on EMT's design concepts, Neumann and Gotham developed cables which exhibited outstanding rejection of interference. Their performance has been acclaimed for over four decades. GAC-3 and GAC-4/1 continue to be the benchmark products In terms of meeting the goal of worry-free transportation of audio signals.

Yet those working at remote broadcast locations and doing field recordings sometimes found themselves in environments that challenged the shielding of even the best conventional cables. The area around the CN tower in Toronto was one such notorious hellhole of RFI. For these unusual and extreme RF environments, EMT marketed what they called a " double-stage Reusen shield" cable which consisted of ***four*** layers of closely spaced copper wires helically wound in opposite directions.

This remarkably shielded cable was popular with those doing remote recordings and broadcasts in the 1980's and since the demise of EMT,

users of EMT 2202 have repeatedly requested that Gotham develop a replacement for this product.

The UltraPro 2 and UltraPro 4/1 both incorporate a new and exclusive combination of multiple layers of Reussen shielding combined with conductive separation layers of aluminized polyester. This new multistage construction provides the maximum shielding possible while maintaining flexibility. The thick velvet matte non-reflective PVC jacket material is both attractive and durable, offering excellent physical protection in mobile applications. These are larger diameter cables which require connectors made to allow 8-9mm entry but they coil well and handle easily.

Finally, UltraPro 2 was developed with the goal of maintaining characteristic impedance that would allow it to handle both analog signals and 110 ohm AES digital signals. This simplifies the choice of cables for field kits since separate cables for analog and digital are no longer required. A purple jacket option was also provided for those who wanted to maintain this widely accepted color identification for digital source cables.

These cables are unsurpassed in remote broadcast and field recording applications. The highest level of shielding + traditional Gotham sonic neutrality + high performance protective jacketing set them apart from all others.

2.
That being said, this level of shielding and thickness of jacketing is often not required in studio and home applications. So that raises a question as whether UltraPro cables will outperform GAC-2AES, GAC-3 and GAC-4/1 in less demanding environments to a degree that would justify their much higher price.

Initial feedback answers that question with a resounding “yes” when it comes to the use of # 11301, GAC-4/1 UltraPro in analog applications. Both audiophiles and professionals agree that this is an extraordinary product with a unique and most impressive “sonic footprint.”

The verdict is mixed when it comes to the GAC-2UltraPro cables. Many Asian audiophiles have responded very positively to # 10561 GAC-2UltraPro. Sales in Korea and China are very strong.

US Recording professionals have been more guarded. A few find it somewhat better than our standard products while others find no advantage. Some users of high end microphones still report a preference for GAC-3.

In digital application there is no clear preference expressed for GAC-2UltraPro # 10666 over GAC-2AES.

Audiophiles and professionals will respond positively to # 10561 in difficult RF environments. ***In permanent installations where RF is not a problem, recording and mastering engineers may not find that GAC-2UltraPro offers a clear and decisive advantage in all applications. Advantages, if any, will be small and more a matter of personal taste.***

As for transmission of AES Digital signals, there is not yet any reported consensus that GAC-2UltraPro outperforms # 10601 GAC-2AES to a significant degree.

Time will tell if these initial conclusions need to be modified.

3.

So at this point in time we lean towards the conclusion that both these new UltraPro cables will be unsurpassed in field applications, and that most audiophiles and recording engineers will find # 11301 GAC-4/1 UltraPro to be well worth the added expense in any environment and application.

But....

We still usually recommend our GAC-4/1 (# 11001 and 11002) as our best product choice for all analog line level applications. With a capacitance of <17 pF/ft. 96 strand conductors and exceptional

shielding, GAC-4/1 quad cable is definitely a product that performs at a very high level and delivers incredible rewards given the modest price.

The performance is so exceptional that one high end facility in Montreal decided not to use multipair cable and to wire everything with individual runs of GAC-4/1---an enormous extra expense. They used close to 2 miles of cable ! (We do make a low capacitance quad multipair but it is very expensive and performance still does not match the individual cables).

GAC-4/1 is the choice of high-end audiophiles around the world for their hi-fi interconnections. In studios it is preferred for all cables connecting sources to active monitor speakers and for assorted XLR and TRS patch cords and interconnect cables.

You will hear a noticeable difference with UltraPro. But whether you really want to spend 3 to 4 times as much obtain it, has to remain your call. In many, many cases the added cost may truly be an unnecessary expenditure.

4.

An Added Note:

A number of manufacturers of multi-channel amplifiers for surround sound/home cinema applications have recommended our standard GAC-2AES to their customers. This cable, originally intended for digital audio interconnects, offers analog users Double Reussen Shielding + a very low capacitance. Its signature sound is a very open and extended top end. Many describe it as a high end that seems to go on forever. Not overly bright but rather dramatic, extended, detailed and "airy". A few mastering engineers believed this to be the ultimate Gotham Cable but most now favor the UltraPro.

Home theater enthusiasts, mostly interested in cinema, have always responded very well to GAC-2AES, describing it as the most "dramatic" presentation of any Gotham cable. Music lovers may find the effect a bit unnatural and by and large they will stick with analog cable.

Perhaps some of this has to do with the fact that so many of the older engineers and music enthusiasts came up in an era where a bit of gentle roll-off at the top end was the norm, as opposed to that razor sharp digital high end that seems to go on forever. You do actually hear that sort of top end when you use our GAC-2AES digital cable – to some ears it is almost irritating. To others, it's expansive.

Lewis E. Frisch, Chief Operating Officer
Gotham Audio LLC

Note about GAC-1 UltraPro Instrument cable :

Again Gotham approached this project with specific design goals. There was a need for a more protective jacketing that coiled more easily than our GAC-1 and an added layer of conductive plastic to further reduce handling noise. Further,we saw that a lower capacitance dielectric and different stranding would combine to allow the cable to better match the pick-ups on electric instruments, reducing loading and "opening up" the sound. It took a full five years for these instrument cables to catch on in the market but now they are widely recognized as a superior product offering outstanding "bang for the buck."

Lewis Frisch
Nazareth, PA.

PLEASING GOLDEN EARS SINCE 1975

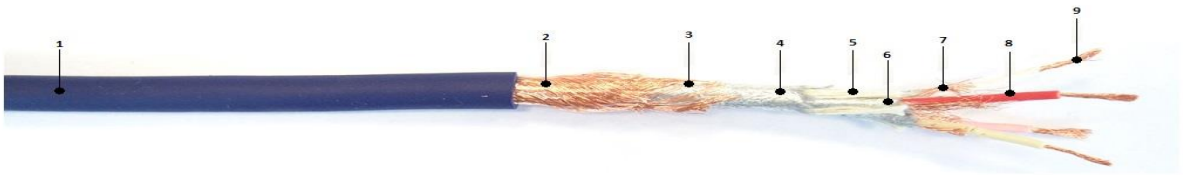
PROUDLY INTRODUCING:

NEW FOR 2014: OUR ULTIMATE CABLE FOR THE MOST CHALLENGING AUDIOPHILE, STUDIO & REMOTE RECORDING APPLICATIONS

11301 GAC-4/1 ULTRAPRO

Low Capacitance Quad Cable with Multistage Reussen Shielding

Gotham's quad construction cable, GAC-4/1, has long been our cable of choice for all line-level interconnect applications and for extended length microphone cables. Gotham design has taken the shielding to an even higher level in our UltraPro series, adding additional layers of shielding that provide for ultimate protection against RFI and EMI.



Construction:

1 = Jacket:	PVC, Ø 8.80mm ultramarine blue

2 = Shield No. 1	Bare copper wires (0.10 mm) 100% coverage
2 = Shield No. 2	Bare copper wires (0.10 mm) 100% coverage
4 = Layer	Polyester nonwoven thermally bonded, both sides aluminium coated
5 = Separation	Filler material viscose
6 = conductor shield layer	Polyester nonwoven thermally bonded, both sides aluminium coated
7 = conductor copper shield	Bare copper wires (0.10 mm) 100% coverage
8 = Isolation	Cellular PE, Ø 2.00mm, 4 diffrent colors
9 = Conductor	Stranded bare LCOF copper wires 64 x 0.10mm (4x) (0.32mm²)

Technical specifications:

Conductor resistance:		max 39 ohm/km
Shielding resistance:		< 28 Ohm/km
Copper weight:	per 100m	7.010 Kg Higher grade LCOF Copper
Capacitance:	cond/cond:	max. 50 nF/km
	cond/shield:	max. 103 nF/km
Side circuit capacitance:	cond/cond:	max. 55 nF/km
Side circuit capacitance:	Quad system	max. 135 nF/km

Each of the four conductors is shielded with a Reussen shield of 100% coverage fine copper wires plus a conductive separation layer of aluminum polyester. The conductors are twisted around each other in a star shape and then all is held in place by another by another layer of coated polyester followed by an overall double Reussen shield. This provides the maximum shielding possible while maintaining flexibility. The velvet, matte non-reflective PVC jacket material is both attractive and durable, offering excellent protection in field applications.