# Report of Observations Regarding the Pokemon Playtests/Prototype Cards

by pfm

For discussion and more details, check the <u>Elite Fourum</u> <u>thread</u> where this topic first broke.

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This document represents my best attempt to objectively compile information about the prototype/playtest Pokemon cards. Any errors brought to my attention will be corrected in any future iteration of this document. I will not be making a determination of what is "real" or "fake". This is simply a report of observations. This document does not make any claim to actions taken or information known by any individual or company that was not made public.

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# Acknowledgements

Thanks to @linkdu, @mika, @humanforscale and all others who helped to compile data and information

# Section 1 Variant Background

#### Variant example

#### Variant characteristics [source]



Documented in 2022 Instagram post [source]

"Proof of Concept" Seadra: "first card created to show the idea of a Pokémon-themed trading card game was a Seadra. It was illustrated with a Game Boy-style frame and included basic card data. The back was a copy-and-paste of the box art from Pokémon Red Version for the Game Boy."



Not documented prior to 2024

Alpha Prototype: "released for the second phase of the TCG's development. These cards make up a set of just 26 cards, meant to further illustrate the game's potential. They were used as building blocks to shape the gameplay features for the TCG and further expand the project. The Alpha Prototype cards all show the Pokémon's Game Boy sprites and are printed on thick card stock."



Documented in official 1990s literature [source]

Alpha Playtest: "feature significantly more detail than the earlier prototypes. These cards are in full color, including background and color images of the Pokémon. Showcasing a more attractive layout, the cards also sport more abilities and fleshed-out mechanics. This group of Alpha Playtest cards includes all of the Pokémon that would be featured in Base Set, including Trainer cards. The cards also feature the back design that would ultimately be used in the final release, illustrated by Takumi Akabane."

#### Variant example



Not documented prior to 2024



Not documented prior to 2024

#### Variant characteristics [source]

**Beta Playtest:** "soon followed the Alpha phase. The developers expanded the set to include all 151 Pokémon that are now near and dear to collectors. This set took the changes established with the Alpha Playtest and combined them with many other conceptualized abilities. The card art was updated to include artwork from Pokémon Red Version and Pokémon Blue Version, eliminating some of the artwork from Pokémon Green Version. Other subtle changes can also be noted, including changes in text font and design details."

**Delta Playtest:** "start looking very close to the final product introduced in the Pokémon TCG. This Charizard card shows artwork illustrated by Mitsuhiro Arita that is very similar to how it appeared in Base Set. The layout of the Delta Playtest cards is similar to their Beta Playtest counterparts, but the Pokémon's art box has a full-color background."



Not documented prior to 2024

Alpha Presentation\*: "nearly identical to Beta Playtest cards with some subtle differences. The Energy Symbols, like their [Beta] Presentation counterparts, are fully illustrated, and the background of each Pokémon's art box is fully illustrated and colored. [Alpha] Presentation cards have illustrated backs identical to the ones used in Beta Playtest. Unlike Beta Playtest, [Alpha] Presentation cards have Ken Sugimori's name spelled correctly."

#### Variant example

#### Variant characteristics [source]



Documented in CoroCoro Magazine [source]

**Beta Presentation\*:** "produced with the sole purpose of teasing the upcoming TCG in publications, such as CoroCoro Comics. They show full-color art with a background and illustrated energy symbols, and each card has a blank back."



Not documented

"Gamma": A so-called "gamma" variant has also surfaced. They share characteristics with Alpha Presentation including the finalized energy symbol design. These have not been graded or recognized by any grading company.

\*Alpha Presentation and Beta Presentation appear to have the designation swapped at some point. The text has been adjusted to match the example shown.

# Section 2 Machine Identification Code

#### The Machine Identification Code (MIC)

Many home and office printers add information to color printed sheets in the form of tiny yellow dots laid out in a grid pattern and repeated across the page. It is referred to by many names including the machine identification code (MIC), counterfeit protection system (CPS), yellow tracking dots, etc.

The MIC can't be seen with the naked eye and the layout/encoding of the dots is different between printer brands. Some brands or models do not leave any MIC (at least in the form of yellow dots). Information like serial number and print time is often encoded in these dots. They can act as a "signature" for the printer that law enforcement uses as document forensic evidence (like in cases of forged currency). A US Freedom of Information request revealed that certain printer brands will cooperate with federal agencies to decode the MIC [source]

#### Viewing the MIC

Given a high enough resolution image, the dots can be viewed in photo editors like Photoshop or GIMP.

Importing the picture and emphasizing or extracting the color yellow can reveal the dots more clearly.

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Many of the prototypes and playtests have MIC dots

#### Examples of MIC [source]



Xerox-style pattern





HP-style pattern

Minolta-style pattern

#### Xerox-style MIC pattern

The most well known pattern was publicly decoded in 2005 by the Electronic Frontier Foundation (EFF) [source] and often referred to as the "Xerox DocuColor" code - named for the printer model line used to discover it. The EFF collected over 100 crowd-sourced printed pages from various printers and used the variation to interpret the Xerox MIC.

The Xerox MIC is a pattern a 15x8 grid checkerboard repeats across the entire printed sheet. Each repeated grid on the sheet has the same dot pattern. Each column represent binary numbers. For example, the eighth column encodes the year in binary. "2024" would appear as "011000" which is 24 in binary.



A dot decoder has been made available here by the E4 user @mika: <u>https://cel-hub.art/yelloow-dots-decoder.html</u>

#### Konica Minolta-style MIC pattern (background)

It is not generally known how to interpret the Konica Minolta MIC. Attempts have been made that provide partial information. Peter Buck wrote a dissertation on reverse-engineering various MICs [source].

#### 5.7 Corner

The Corner pattern has been observed in Konica Minolta and Epson machines. It consists of a grid of 15x24 dots. The recurring pattern consists of a corner in the left upper corner as shown in Figure 22. Furthermore, the pattern is grid aligned. This makes it hard to find the precise configuration of the pattern.



Figure 6: Pattern 3: Marking (red) and other tracking dots (blue). Rectangles have been added to this figure to mark our detected code word blocks. The solid boxes indicate the pattern's offset.



Both the work from Buck and from Richter and Escher, *et al.* [source] point to a repeated 15x24 grid (plus one row that is always blank) that is anchored at the "corner" dots.

Both papers also suggest 2x3 code blocks that are one-hot encoded, which could indicate a base-6 numbering system (0, 1, 2, 3, 4, 5) based on where the dot falls in each block.

Neither source could interpret any of the blocks.

Ping and Lei wrote a paper that decodes time information (hour, day, month, year) from the MagiColor 8650 [source], using the same base-6 numbering block system described above. A total of 8 blocks are devoted to encoding this time information. Although, it appears many Konica Minolta printers fill these blocks fully with "0" or "5", suggesting the time information is intentionally not being included.

#### Konica Minolta-style MIC pattern (data collection)

35 samples of Konica Minolta color printed sheet scans were collected. 21 samples are from the EFF dataset (2005 and earlier models) [<u>source</u>]; 9 were collected from published literature; 5 were community sourced. Table of all samples can be found in the supplementary section.



Patterns were normalized from the scanned image to a machine-readable format by manually copying the pattern using a custom Python tool (above). This sample is 001 of the EFF dataset (Magicolor 2300DL).



Boxes in blue are timestamp-based as identified by Ping and Lei [source]. Here, I propose that boxes in orange encode information about the printer model, or rather an ID that corresponds to the primary printing component in the machine.

#### Konica Minolta-style MIC pattern (novel results)

Boxes 2, 3 and 7 are constant for printers with the same model. To interpret the code, take box 7, box 3 and box 2 (in that order) and combine their numbers. For the example below: 0,0,5. This is a base-6 number (5) and we can convert it to decimal (which is also 5). A different example could be 2,3,0 which would be 230 in base-6 and 90 in decimal. A table in the Appendix lists all the codes extracted.



The number from these three blocks:

- Is constant within the same model of printer
- Is shared by different printer models that use the same internal printing components
- Is highly correlated with the release year of the printer (see right)
- Code 001 appears in 2001, right after Minolta begins to mass produce inkjet heads [source]



Given the strong relationship between the internal printer component manufacture year and the code from the Konica Minolta MIC, we can reasonably interpolate a lower bound year of manufacture for a given printer from the MIC.

# Section 3 MIC Found on Prototype/Playtests

#### Pattern A (Alpha)



Konika Minolta-style pattern. Orange blocks decode as 108 in decimal - suspected lower bound year the printer components were manufactured was 2016. No information about print time but presumed to be any time after 2016.

#### Pattern B (Beta)



## Date: 2024-6-29 at 8:17 -- Printer Serial Number: 704641508

Xerox-style pattern. All have matching printer serial numbers. Date is variable, but all observed so far are 2024 with the earliest being in June.

#### Pattern C (Seadra)



Konika Minolta-style pattern. Orange blocks decode as 129 in decimal - suspected lower bound year the printer components were manufactured was 2019. No information about print time but presumed to be any time after 2019.

#### Pattern D (Double)



Example of a double overlapping pattern (having both Pattern A and Pattern B). Left image shows Pattern A in white, slightly offset to Pattern D. Right image shows the serial number from Pattern B. Presumed to be a situation where an item with Pattern A was photocopied by the printer that produces Pattern B.

#### Pattern E (Ephemeral)



Pattern E has patchy traces of Pattern A, in spots consistent with the color of the image. Presumed to be a situation similar to Pattern D: where an item with Pattern A was photocopied by a printer that produces no pattern. Pattern A establishes a lower bound time of when this could have been printed.

#### Pattern F (Fitting)



Xerox-style pattern dating to 1996. Printer serial number is distinct from Pattern A, but has been intentionally obscured here for the sake of preventing any future forgeries.

# Section 4 Backside Variants

For this section, we are only considering cards with the Pokeball back design. Dot pattern inference is based on at least 3 high-res samples, it is possible exceptions exist.

#### HQ Backside (High Quality)



Alpha Backside







Has dot Pattern A on all samples tested. 9 distinct variants exist (see Appendix), possible photocopy run of a 3x3 set of backs.



For this section, we are only considering cards with the Pokeball back design. Dot pattern inference is based on at least 3 high-res samples, it is possible exceptions exist.

#### Striated Backside



Washed-out Backside

Has dot Pattern E on all samples tested.



Has dot Pattern D on all samples tested.





Section 5 Detailed Breakdown of Variants

#### "Proof of Concept" Seadra



The "Proof of Concept" Seadra appeared in an Instagram post in 2022. This copy is distinct from the graded copy. The graded copy has lossy elements, a more washed-out look and shares printing artifacts with the Instagram copy (horizontal lines across the art, some highlighted; shared dot under the text).

Corner style is also different The copy in the Instagram post appears to be a print with a square cut and black border, mounted on a black card. The graded copy has the black outline from the print completely trimmed and rounded. Overall, there is evidence to support that the graded copy is a photocopy of the Instagram copy. The graded copy has dot Pattern C which suggests the card was printed recently (2019 or later).

#### Alpha Prototype Variants



Alpha Prototype variant can be identified by the background of the Pokemon window and whether the black dots are full (HQ) or lossy (LQ). Printer artifacts line up between HQ and LQ cards, suggesting LQ is a photocopy of HQ (date of photocopying unknown). One single HQ set has been graded. All other copies have LQ traits. No MIC on these cards (printed in black and white).

#### Alpha Playtest Variants



Variant I

- HQ Backside
- Dot Pattern F
- Approximately 9 graded total



Variant II

- Alpha Backside
- Dot Pattern A
- All from single set that includes all base set Pokemon



Variant III

- Washed-out Backside
- Dot Pattern D
- Nearly all Trainer cards and specific Pokemon (Charizard, Blastoise, Venusaur, Mewtwo, Pikachu, Raichu)

#### Beta Playtest Variants



High Quality (HQ)





Low Quality (LQ)



Difference between HQ and LQ beta Playtest can be seen best in the text.

- Striated Backside
- No dot pattern on front
- Approximately one complete set of 151 Pokemon are HQ
- Dot Pattern E on backside, which implies the backside is a photocopy from the Alpha Playtest Variant II backside

- Washed-out Backside
- Dot Pattern B (2024 dots)
- Majority of copies are LQ

Delta Playtest & Alpha Presentation Variants



Delta Playtest

No distinct subvariants known. All tested share the same characteristics as LQ beta.



Alpha Presentation

No distinct subvariants known. All tested share the same characteristics as LQ beta.

#### **Beta Presentation Variants**



**Beta Presentation** 

No distinct subvariants known. No backside, no MIC present. Print DPI supports the hypothesis that an older printer may have been used.

#### Table Summary

Variant	Subvariant	Backside (Dots)	Front Dots	Evidence of photocopy	Evidence of recent printing
"PoC" Seadra		-	Pattern C	V	V
Alpha Prototype	HQ	-	-	-	-
	LQ	-	-	$\checkmark$	-
Alpha Playtest	Variant I	HQ (Pattern F)	Pattern F	-	×
	Variant II	Alpha (Pattern A)	Pattern A	-	V
	Variant III	Washed-out (Pattern D)	Pattern B	$\checkmark$	V
Beta Playtest	HQ	Striated (Pattern E)	None	🗸 (backside)	V
	LQ	Washed-out (Pattern D)	Pattern B	🗸 (backside)	V
Delta Playtest		Washed-out (Pattern D)	Pattern B	✔ (backside)	V
Alpha Presentation		Washed-out (Pattern D)	Pattern B	✔ (backside)	V
Beta Presentation		-	None	-	-
"Gamma"	LQ	Not checked	Pattern B	-	V

# Section 6 Are Beta Playtests a Recent Creation?

# Evidence supporting the idea that Beta Playtests and related variants were a recent creation. This is still simply a hypothesis.

- All copies of Beta Playtest, Delta Playtest, Alpha Presentation have evidence of recent printing
- No documentation of any of the above variants pre-2024
- Inconsistencies in the timeline as presented and implied by the variant designations (see next page for detailed breakdown).
- Delta Playtest, Alpha Presentation being the same digital file as Beta Playtest but with swapped images
- Unique font was used, exclusive to the above variants.
- Usage of final energy design in Alpha Presentation but not in Beta Presentation (CoroCoro Magazine)
- Base set released in October 1996, Red/Blue artwork used in Beta Playtest was not used publicly until 1997 (as best as I can tell) around the release of Pokemon Blue in Japan
- Alpha Playtest cards with dot Pattern F are dated to July 11th 1996; Beta Presentation appears in Corocoro magazine in August 1996; very small window of time for the creation of Beta Playtest, Delta Playtest, Alpha Presentation.
- No Pokemon Power or Trainer cards in Beta Playtest or Delta Playtest.
- Many errors and inconsistencies on Beta Playtests [source] that would make playtesting inaccurate no
  evidence of corrections made.
- Shared "Sugimorori" typo suggests Beta Playtest were made all at once.
- Jungle and Fossil Pokemon have wording and attacks that match their final version almost identically.
- Final Porygon artwork appearing on Alpha, making the other variants redundant.









# Supplementary Appendix

## "Proof of Concept" Seadra



# "Alpha Playtest" (Pokemon)



## "Beta Playtest"



## "Alpha Presentation"



## "Alpha Prototype"



# "Alpha Playtest" (Trainer)



## "Delta Playtest"



## "Beta Presentation"





#### Printer data collected

printer_id	year	code_base6	code	brand	model
0066	2001	001	1	Minolta-QMS	Desklaser 2200
0011	2001	001	1	Minolta-QMS	Magicolor 2210
1002	2001	001	1	Minolta-QMS	Magicolor 2210
1001	2001	001	1	Epson	AcuLaser C2000
0089	2001	003	3	Minolta	CF1501
0012	2001	003	3	Minolta	DIALTA Color CF2001
0025	2003	005	5	Minolta-QMS	Magicolor 2300DL
0061	2003	005	5	Minolta-QMS	Magicolor 2300DL
0064	2003	005	5	Minolta-QMS	Magicolor 2300DL
0087	2003	005	5	Minolta	Magicolor 2300DL
0060	2003	005	5	Minolta	Magicolor 2300DL
0001	2003	005	5	Konica Minolta	Magicolor 2300DL
0057	2003	005	5	Konica Minolta	Magicolor 2300DL
0050	2003	005	5	Epson	AcuLaser C900
0097	2003	005	5	Epson	AcuLaser C1900
0005	2003	005	5	Epson	AcuLaser C1900
0065	2003	011	7	Minolta-QMS	Magicolor 7300
0038	2004	022	14	Konica Minolta	Bizhub C350
1004	2005	030	18	Konica Minolta	Bizhub C252
1005	2005	030	18	Konica Minolta	Bizhub C252
1006	2005	030	18	Konica Minolta	Bizhub C252
1003	2005	030	18	Konica Minolta	Bizhub C252
0035	2005	030	18	Konica Minolta	Bizhub C252
0063	2005	031	19	Konica Minolta	Magicolor 2430DL
0067	2005	031	19	Konica Minolta	Magicolor 2430DL
0058	2005	031	19	Konica Minolta	Magicolor 2430DL
0059	2005	031	19	Konica Minolta	Magicolor 2430DL
1009	2008	100	36	Konica Minolta	Magicolor 8650
1007	2012	221	79	Konica Minolta	Bizhub C754
1008	2012	221	79	Konica Minolta	Bizhub C754
1010	2016	303	111	Konica Minolta	Bizhub C658
1013	2019*	322	122	Konica Minolta	Bizhub C3351i
1014	2019	332	128	Konica Minolta	Bizhub C360i
1012	2019	332	128	Konica Minolta	Bizhub C300i
1011	2021	353	141	Konica Minolta	Bizhub AccurioPrint C4065

\* C3351i was released in 2024; C3350i was released in 2019, which shares the same internal component

Printers with the same code appear to share the same internal ink system. Some early Epson models the same parts as Minolta printers (ie. compatible ink drums). Modern Epsons do not appear to add a yellow dot MIC.

Konica and Minolta merged in 2003.

Alpha backside has 9 distinct variants. These may have come from a 3x3 photocopy of original backsides





Ball Type 1 - Poliwag & Kakuna (+ 8 others)





Ball Type 3 - Venusaur & Zapdos (+ 5 others)





Ball Type 5 - Jynx & Vulpix (+ 7 others)



Ball Type 7 - Nidoran & Dratini (+ 6 others)



Ball Type 9 - Charizard & Machop (+ 8 others)





Ball type 2 - Poliwag & Tangla (+ 7 others)



Ball Type 4 - Electabuzz & Haunter (+ 6 others)





Ball Type 6 - Abra & Metapod (+ 8 others)





Ball Type 8 - Alakazam & Machamp (+ 7 others)





Hair on Ball Type 8 / Hair on Ball Type 9